DOCUMENT RESUME

ED 134 412	SE 021 421

AUTHOR	Gibbons, John H.; And Others
TITLE	An Energy Education/Conservation Plan for Tennessee.
INSTITUTION	Tennessee Univ., Knoxville. Environment Center.
SPONS AGENCY	Tennessee Univ., Knoxville. State Agency for Title I.
PUB DATE	May 76
NOTE	154p.
EDRS PRICE	MF-$0.83 HC-$8.69 Plus Postage.
DESCRIPTORS	Community Action; *Conservation Education; *Energy; *Natural Resources; *Program Descriptions; Program Planning; *State Programs; *Statewide Planning; Universities
IDENTIFIERS	*Tennessee

ABSTRACT

Presented is an energy/education conservation plan for Tennessee. The first section is concerned with program justification. Discussed are the energy situation in Tennessee, need for a program, and sources of information. The second section presents a brief summary of the program planning process. Section three presents a comprehensive plan. This section includes program parameters, groups and agencies to be involved, and programs recommended for funding consideration in 1976. The Appendices include a number of items: (1) materials related to the first Task Force meeting; (2) materials related to the second Task Force meeting; (3) process instrument used for collecting data; (4) analysis of the process instrument; and (5) workshop evaluation data. (RH)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED134412

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

AN ENERGY EDUCATION/CONSERVATION PLAN FOR TENNESSEE

Developed for the
State Agency for Title I (HEA)
with assistance from the
Statewide Energy Education Task Force

by

John H. Gibbons
Jonathan M. Wert
Nancy E. Collins

May 1976

Environment Center
The University of Tennessee
South Stadium Hall
Knoxville, Tennessee 37916
(615) 974-4251

SE 021 421

ACKNOWLEDGEMENTS

The authors wish to express their sincere appreciation to the following individuals and organizations for contributing their own energy and ideas so willingly as members of the Task Force:

Marvin Adkins
  Tennessee Technological University

Robert Anderson
  Hiwassee College

Calvin Atchison
  Tennessee State University

Geneva Bishop
  State Department of Education

Fred Boercker
  Austin Peay State University

Carson Brewer
  Knoxville *News-Sentinel*

Tony Campbell
  Tennessee Conservation League

Roger Carlsmith
  Oak Ridge National Laboratory

L. E. Conyers
  Jackson State Community College

Cynthia Crane
  Department of Economic and Community Development

Margaret Crockett
  State Department of Education

Bob Cummings
  UT Center for Government Training

John Czirr
  Austin Peay State University

Darwin Davies
  Walters State Community College

R. C. Day
  UT-Chattanooga

Lloyd Downen
  Agricultural Extension Service

Wayne Fisher
  UT-Nashville

Charles Gee
  Milligan College

Jonathan Gibson
  Tennessee Environmental Council

Paul Goldberg
  Roane State Community College

Edwin Griggs
  Tennessee Technological University

Ward Harder
  Dyersburg State Community College

Gordon Hopkins
  Memphis State University

Bill Hutson
  Tennessee Wesleyan College

Phil Johnson
  Oak Ridge Associated Universities

John Judy
  Oak Ridge Public Schools

Robert Kopecky
  Motlow State Community College

Charles Lee
  Volunteer State Community College

David Loebbaka
UT-Martin

Richard Marsh
Chattanooga State Community College

Myron McCay
UT-Chattanooga

Leo McGee
Tennessee State University

William Miller
UT-Knoxville (Engineering)

Joe Minor
State Department of Education

Richard Moore
Memphis State University

Jack Morris
Milligan College

Cynthia Oliphant
Tennessee Energy Office

Shelia Owens
Memphis State University

Frank Parker
Vanderbilt University

Krishan Paul
Nashville Urban Observatory

John Pauley
Oak Ridge Associated Universities

R. W. Peplies
East Tennessee State University

Kenneth Purdy
Tennessee Technological University

Courtland Randall
Oak Ridge Associated Universities

Jack Rhoton
Kingsport City Schools

Bob Ryberg
Tennessee Wesleyan College

Everett Smith
UT Center for Government Training

G. F. Smith
Agricultural Extension Service

R. E. Templemeyer
UT Space Institute

Glenn Theg
WETE Radio (Knoxville)

Claudia Viken
Tennessee Energy Office

Tom Waldrop
Energy Opportunities Consortium

Susan Wall
Douglas-Cherokee Economic Authority

Gary Wallace
Milligan Collee

Jim Ward
Tennessee Valley Authority

Gist Welling
Agricultural Extension Service

Bruce Whitney
Carson-Newman College

Kenneth Wright
UT-Knoxville (Continuing Education)

In addition, the authors want to thank Mr. Paul Martin, Jr., and Ms. Nelda Harrell of the State Agency for their assistance and suggestions. Ms. Pam Stewart deserves special credit for typing the manuscript.

ABOUT THE AUTHORS

Dr. John H. Gibbons is Director of the Environment Center at The University of Tennessee. Before coming to UT, he worked for the Oak Ridge National Laboratory and the Federal Energy Administration. FEA honored him with the Distinguished Service Award in 1974. Dr. Gibbons is known and respected nationally for his expertise in the areas of energy and the environment.

Dr. Jonathan M. Wert is a Consultant to the UT Environment Center in the areas of energy, conservation, and environmental affairs. Before coming to UT, he worked for TVA as a supervisor of Environmental and Energy Education. He has authored approximately 25 environmental publications and has been honored in numerous biographical listings for his work in environmental education and conservation.

Ms. Nancy E. Collins is a Technical Assistant at the UT Environment Center and manages the Energy/Environment Resource Materials Center. Her interdisciplinary background includes mathematics, English, philosophy, law, art, information science, and continuing education. She is a former adult education teacher and has served as Dissertation Editor/Consultant for Highland University since 1973.

TABLE OF CONTENTS

SECTION PAGE

I. PROGRAM JUSTIFICATION 1

The Energy Situation in Tennessee 1

Need for an Energy Education/Conservation Program . . . 4

Sources of Information 6

II. A BRIEF SUMMARY OF THE PROGRAM PLANNING PROCESS 7

III. THE COMPREHENSIVE PLAN 17

A. Introduction. 17

B. Program Parameters 17

Problems 17

Goals 18

Needs 18

Constraints 19

Objectives 19

C. Program Descriptions 20

Coordinating Institution 20

Cooperating Agencies and Delivery Systems 23

Community Leaders: City and County Officials . . 26

Community Leaders: Business and Industry 28

Community Leaders: Recognized Community Leaders. 29

Consumers: General Public 30

Consumers: Contractors, Architects, and Engineers 34

Educators: Teachers 33

D. Suggested Program Titles 36

E. Programs Recommended for Funding Consideration in 1976 38

Energy Education/Conservation Program for Community Leaders: Government Officials 40

Energy Education/Conservation Program for Community Leaders: Executives and Middle Management Employees of Business and Industry . . 41

Energy Education/Conservation Program for Community Groups 42

One-Day Energy Education/Conservation Inservice Training Program for Teachers (K-12) 43

Two-Week Energy Education/Conservation Course for Teachers (K-12) 44

One-Quarter/Semester Energy Education/Conservation Course for Teachers (K-12) 45

Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers using FEA's "Project Retro-Tech Program 46

Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the NBS "EPIC Handbook" 47

Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the UT-ERDA "Energy Management Program" Material . . . 48

A Short Series of Half-Hour Television Programs on Constructing and Retrofitting Homes and Buildings for Energy Conservation-Conscious Consumers 49

APPENDICES 51

A. MATERIAL CONCERNING THE FIRST MEETING OF THE TASK FORCE DECEMBER 8, 1975 53

Correspondence 55

Agenda 59

Packet Materials 61

Work Sheets 62

Statement of Commitment Form 70

B. MATERIAL CONCERNING THE SECOND MEETING OF THE TASK FORCE APRIL 6, 1976 71

Correspondence 73

Program Breakdown 74

Procedures and Steps in Program Definition 77

Program Parameters 79

Matrices 81

Agenda 84

C. PROCESS INSTRUMENT 87

D. ANALYSIS OF PROCESS INSTRUMENT 105

E. EVALUATION MATERIALS 121

F. TITLE (HEA) PROPOSAL FORMS 125

SECTION I

PROGRAM JUSTIFICATION

Over the past decade, the nation has consumed energy at a rate faster than it has produced it. Demand growth has continuously (up to 1973) increased due to: (1) growth of both population and disposable income; (2) rapid industrial expansion; (3) proliferation of energy-intensive patterns of resource consumption, including dependence on the automobile; and (4) decreasing relative energy prices. Domestic supply growth declined because of: (1) lack of financial incentives to develop supplies and refineries; (2) environmental restrictions on production and combustion; (3) increased price-competitiveness of foreign suppliers; and (4) depletion of low-cost reserves.

The Energy Situation in Tennessee

Specific instances of the growing gap between demand and supply began to appear in Tennessee in late 1972 and early 1973. Several municipal natural gas distributors were informed by their pipeline suppliers that they would no longer have sufficient gas to meet their needs and that they would be forced to freeze supplies at barely above current peak demands. Many industries or organizations with interruptable gas contracts found themselves being interrupted more frequently, or for the first time.

Industries which attempted to shift from coal to oil or natural gas in order to meet air pollution control emission standards found that obtaining these cleaner fuels in large quantities was difficult and expensive--sometimes impossible.

Scattered shortages of gasoline and diesel fuel developed in the summer of 1972. Many service stations could not obtain enough gasoline to meet the demand in 1973 and were forced to curtail operating hours. Many farmer's co-ops, especially in West Tennessee, could not obtain enough gasoline fuel to supply all of the needs of their customers during the spring planting season in 1973 and Liquid Propane Gas (LPG) for crop-drying.

While the problems occurring in Tennessee are generally mild compared with those in other parts of the country and although the growing shortage of natural gas has not yet reached crisis proportions, there is every indication that shortages will become more acute in the future. The nation is facing a period during which the supply of energy will be less than that required to satisfy all demands for normal growth under present modes of utilization.

The only fuel produced in significant quantity in Tennessee is coal, although the State imported more than 60 percent of the coal used in 1970. There is some in-state production of petroleum and natural gas but it is highly unlikely that Tennessee will produce enough to meet a significant percentage of its needs in the near future.

Energy demand grew rapidly in Tennessee between 1960 and 1970. The increase in coal demand was 18 percent; petroleum products demand increased more than 60 percent; utility gas demand increased by almost 70 percent; LPG and methane increased by nearly 200 percent; electricity demand doubled.

At present, only coal and electricity are readily available to Tennesseans. The average Tennessean uses almost twice as much electricity as the average American. Historically, TVA electricity has been cheap and dependable. The low price of electricity has undoubtedly resulted in more energy-intensive behavior patterns in the Tennessee Valley compared to those in areas where prices have been higher. While electricity prices in Tennessee are currently about 40 percent lower than the national average, the rate of price rise (among the highest in the nation over the past two years), plus the much greater dependence on electricity, means that Tennesseans are more heavily impacted by electricity prices changes than residents of other states.

There is extensive evidence that significant amounts of electricity can be saved through increased efficiency without drastically altering lifestyles or standards of living. Many homeowners have reduced their use of electricity by 20 percent or more over the past two years. Studies made recently by federal agencies as well as the Electric Power Research Institute (EPRI), an independent non-profit organization established by American electric utilities, have shown how electricity use can ultimately be reduced by 30 to 50 percent in the plant, office, and home using available technologies. The fact that changes to increased efficiency are happening slowly is partly due to ineffective information transfer to users of energy about how they can save money by making investments in energy conservation.

It is clear that the nation has reached the end of a long period of cheap, abundant energy, and that this condition will not soon return, if ever. Energy conservation is not the sole solution to our energy problem. However, it will result in savings of money and natural resources and give us time to develop and implement new supplies and technologies.

Need for an Energy Education/Conservation Program

The existing energy education/conservation movement in Tennessee can best be described as passive. There have been and are a few good programs scattered across the state, but these rely almost solely on utilization of published materials. There is evidence that people are turned off by traditional kinds of material (e.g., discussions by consumers at symposia on TVA and Energy Conservation held at Nashville and Knoxville, 1975-6). They are also suspicious of those agencies (TVA, local power distributors) which develop the materials and the media which traditionally disseminate it. Experience has shown that developing and disseminating material is not very cost-effective since many people cannot or will not read and those who do read often don't act. The many requests for assistance received at the University of Tennessee Environment Center indicate that the consumer still has trouble finding relevant information when it is needed. Many don't know what is available or where they can go for help. Material in the media and disseminated by special interest groups is often biased, narrow, and confusing to consumers.

If energy conservation is to make a significant impact on our energy consumption patterns, a more aggressive approach must be taken to implement conservation measures. In short, we need an active program which is tailored to specific needs, has a significant multiplier effect, and takes advantage of existing mechanisms to reach various clients.

The establishment of an energy education/conservation program is dependent upon leadership, direction, coordination, and sound planning which fully capitalize on past investments and existing resources. Implementation of the programs described in this plan would help meet needs in Tennessee and greatly enhance energy education/conservation on a statewide basis. It is based on the following philosophies:

- Establish and share use of a common technical resource base.
- Design materials and activities to meet specific needs.
- Reach target audiences through cooperative arrangements with existing mechanisms and institutions.
- Provide continuous feedback from constituents to keep the program "tuned" to needs.
- Design into the program methods for evaluating results in order to enhance benefits and costs.

SELECTED PUBLICATIONS SPECIFICALLY ON ENERGY IN TENNESSEE

Energy Handbook: TENNERGY. Tennessee Energy Office, Suite 250, Capitol Hill Building, Seventh & Union, Nashville, Tennessee 37219. 1975. 58 pages.

This handbook was prepared to serve as a basic reference tool for educators, legislators, students, and others with a need to know energy facts.

Energy in Tennessee: The Report of the Governor's Task Force on Energy. Tennessee Energy Office (address above). 1973. 147 pages.

This is an inventory of energy resources and their use in Tennessee and areas where conservation of energy could be most effective.

Study on Energy in Tennessee. Tennessee Joint Task Force on Energy, Suite 5, Legislative Plaza, Nashville, Tennessee 37219. 1975. 186 pages.

This study looks into the general energy picture in Tennessee and recommends ways which could aid in moderating the energy crisis in Tennessee.

Tennessee and Energy: Research and Demonstration for Conservation and Production. Energy Task Force, 301 Church Avenue, Knoxville, Tennessee 37902. 13 pages.

This booklet discusses ways in which the Oak Ridge operations of ERDA, TVA, and The University of Tennessee cooperate in attempting to solve the nation's and state's current and future energy problems.

SECTION II

A BRIEF SUMMARY OF THE PROGRAM PLANNING PROCESS

Through the direction and fiscal support of the State Agency for Title I (HEA), significant progress has been made during the last five years in the area of consumer education in Tennessee. The past two years have shown an increasing interest in energy education and conservation. More and more Tennesseans are beginning to realize that conservation can save them money and resources using existing technologies, while the research and development agencies are creating new options for the future. Because of this increasing interest and concern, the State Agency asked the University of Tennessee Environment Center (UTEC) staff to coordinate the preparation of a plan of action for energy education/conservation which would be tailored to the needs and resources available in the State.

The key to developing a viable plan was the involvement of experts and laymen from across the State who accurately reflected the feelings of Tennessee residents about the establishment of such a program. The decision was made to establish a task force which would be representative of leaders in higher education, state government, public schools, and citizen interest groups which would be used to identify initial problems, needs, target groups, and activities for possible programs. The UTEC staff (hereafter referred to as the planning staff) directed and coordinated Task Force activities.

During November, 1975, prospective members of the Task Force were identified (primarily from those already participating in HEA Title I programs), contacted, and invited to attend a meeting on December 8, 1975, on the UT-Knoxville campus. All invitations were accompanied by materials which would acquaint members with the energy situation in both Tennessee and the United States. As a result of extensive and careful preparation and a large turnout of 30 interested, enthusiastic "volunteers," the first Task Force meeting was exceptionally productive. At the meeting, participants divided into three work groups. Each group attempted to identify specific problems, needs, goals, program possibilities, target groups, and constraints in terms of themselves as individuals, their communities, and the State of Tennessee. Each group chose a group leader to act as spokesman and was appointed a resource person from the planning staff. The group leader completed work sheets (see Appendix A) which reflected the feelings of the group as a whole. These were collected along with the work sheets which had been completed by the individual group members.

Following the meeting, all the work sheets of the members and the groups were transcribed and analyzed for content. The analysis resulted in the preparation of a "process instrument" (sometimes referred to loosely as a "questionnaire"). The Process Instrument (PI) was a synthesis of all the responses and ideas contributed by Task Force members at the December meeting and for this reason might appear to be redundant or overly lengthy (see Appendix C). The purpose of the PI was to give the Task Force members an opportunity to reflect on their views presented in December by rank-ordering statements set forth at the meeting. In essence, individual members were "fed back" the ideas of the group and asked to respond to them again without the influence of the group. This gave the planning staff the opportunity to verify the results of the group as well as to prioritize the plan components.

The PI was distributed to Task Force members (and to certain other persons identified by the Director of the State Agency for Title I) early in January, 1976. A 75 percent return of the Process Instrument was considered excellent. The analysis of the PI returns included: (1) correlation of target groups with outreach methods; (2) identification of program possibilities by institutions/agencies correlated with programming interests of supporting (non-Title I fundable) agencies; (3) specific identification of major program goals and objectives; (4) identification of major target groups (foci) and subgroups; and (5) establishment of constraints within which the program plan would be developed. (See Appendix D for analysis of PI responses.)

In mid-March, 1976, plans were made to have a second meeting of the Task Force on April 6. Invitations which were mailed to Task Force members included a brief description of three major target groups (foci) and outreach methods for each group. They were asked to select one focus which they would like to investigate at the meeting. The following week, a set of detailed procedures which would be followed at the meeting was mailed to participants. These instructions included a summary of findings from the analysis of the PI. It was explained that the second meeting would be highly structured, as opposed to the "brainstorming" format of the first meeting. The purpose of the second meeting was to formulate specific programs to be considered for first-year funding for specific target groups, including objectives, activities, and evaluation efforts. (See Appendix B for all materials and correspondence associated with the April Task Force meeting.)

The second day-long Task Force session included 32 participants representing 22 different institutions/agencies. Nine of these institutions/agencies were not represented at the first meeting; three had responded to the PI; and three had been invited to give presentations at the meeting. Eight institutions/agencies which had attended the first meeting and completed the PI did not attend the second meeting; three of these sent their regrets but assured the planning staff of their continued interest in the effort to develop a state program. These statistics are presented to permit a reflection on the turnover of participants on the Task Force. Rather than detract from the results of the planning process, it appears that the input of 43 institutions and agencies from across the State strengthened the contents of the plan by allowing as much diverse input as possible. (See Table 1 and Figure 1 following.) Furthermore, the Task Force meetings provided an interface between higher education institutions and state and federal agencies on the issue of energy education/conservation which had not taken place before in Tennessee. This event

TABLE I

PARTICIPATION OF INSTITUTIONS/AGENCIES IN TASK FORCE ACTIVITIES

Participating Institution/Agency	Attended December 8 Meeting	Returned Process Instrument	Attended April 6 Meeting
Colleges and Universities			
1. Austin Peay State University	XXX	XXX	---
2. Carson-Newman College	XXX	XXX	---
3. East Tennessee State University	XXX	---	XXX
4. Hiwassee College	XXX	---	---
5. Memphis State University	---	XXX	XXX
6. Milligan College	XXX	XXX	---
7. Tennessee State University	---	XXX	---
8. Tennessee Technological University	XXX	XXX	XXX
9. Tennessee Wesleyan College	XXX	XXX	---
10. Vanderbilt University	XXX	XXX	---
Community Colleges			
11. Chattanooga State	XXX	XXX	---
12. Dyersburg State	---	XXX	---
13. Jackson State	---	XXX	---
14. Motlow State	XXX	XXX	XXX
15. Roane State	XXX	XXX	XXX
16. Volunteer State	---	XXX	---
17. Walters State	XXX	XXX	XXX
The University of Tennessee System			
18. Agricultural Extension Service	XXX	XXX	XXX
19. Center for Government Training	XXX	---	---
20. Chattanooga	---	XXX	XXX
21. Continuing Education	---	XXX	---
22. Environment Center	XXX	---	XXX
23. Knoxville	---	---	XXX
24. Martin	XXX	XXX	---
25. Nashville	XXX	XXX	---
26. Space Institute	---	---	XXX
27. State Agency for Title I (HEA)	XXX	---	XXX

TABLE I (Continued)

Participating Institution/Agency	Attended December 8 Meeting	Returned Process Instrument	Attended April 6 Meeting
Other Agencies/Organizations			
28. Douglas-Cherokee Economic Authority	---	XXX	---
29. Economic and Community Development	---	---	XXX
30. Energy Opportunities Consortium	XXX	XXX	XXX
31. Kingsport City Schools	XXX	XXX	XXX
32. Knoxville News-Sentinel	---	XXX	---
33. Oak Ridge Associated Universities	---	---	XXX
34. Oak Ridge National Laboratory	---	---	XXX
35. Oak Ridge Schools	XXX	XXX	XXX
36. Sierra Club	---	XXX	---
37. Tennessee Conservation League	---	XXX	---
38. Tennessee Energy Office	XXX	XXX	XXX
39. Tennessee Environmental Council	---	XXX	XXX
40. State Department of Education	XXX	XXX	---
41. TVA Power Marketing Division	---	---	XXX
42. Urban Observatory (Nashville)	XXX	XXX	XXX
43. WETE Radio (Knoxville)	---	XXX	---

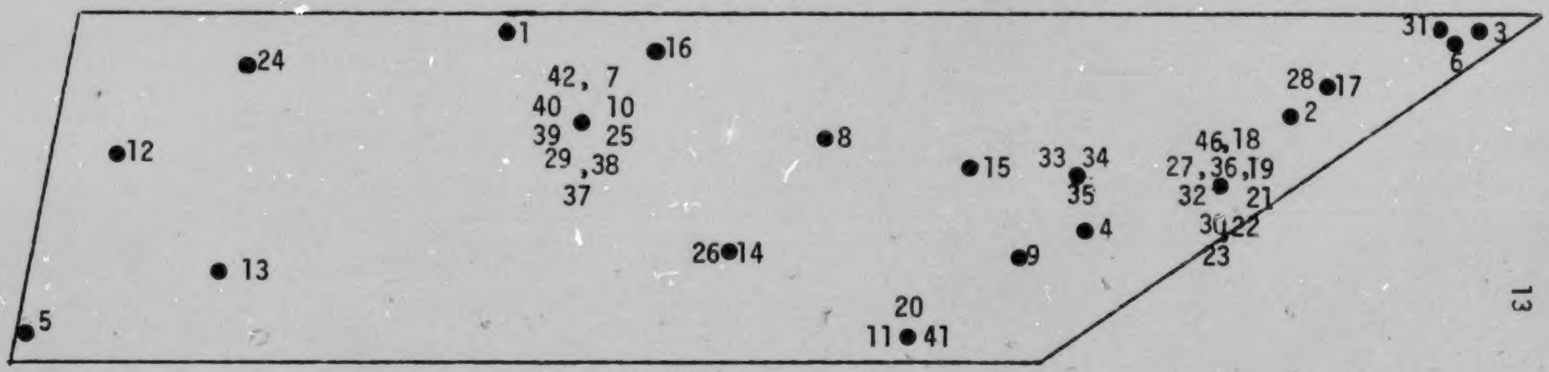
1
16
24
31
3
6
42, 7
40
10
39
25
29
,38
37
28
17
2
12
8
15
33
34
35
46,18
27,36,19
32
21
4
30
22
23
26
14
9
13
5
20
11
41

FIGURE 1

SCHEMATIC DIAGRAM SHOWING GEOGRAPHIC DISTRIBUTION OF PARTICIPANTS IN THE PLANNING PROCESS
Note: See Table I for identification of institutions/agencies by number.

alone could be the single most significant outcome of the entire planning process.*

Participants at the April 6 meeting divided into six small work groups, ranging in size from three to seven people. Each group examined in depth the programming components which would be required by community leaders, consumers/general public, and educators. The group was kept "on track" by a facilitator who was familiar with the process and objective to be carefully followed by each group. Results of the work sessions were again compiled and analyzed by the planning staff in the days following the meeting. This analysis was used as the basis for the program suggestions and priorities set forth in Section III of this Plan.

The state plan was drafted in its final form for submission to the State Agency for Title I on April 15, 1976. Copies of the plan will be distributed to all participants in the planning process, with the primary purpose being the solicitation of short proposals for the recommended first-year program components. (It would have been desirable to have the draft plan reviewed and amended by the Task Force and Title I Administration before soliciting proposals; time deadlines unfortunately foreclosed that option). The proposals will be reviewed by the State Agency and submitted to its advisory council. Programs funded for the first year can begin July 1, 1976.

---

*The planning process is the subject of a thesis developed by Ms. Nancy E. Collins. Copies will be available from UTEC in July for use by states wishing to replicate or adapt this process.

As the end of the first phase approaches, evaluations will be conducted and the Task Force will be reconvened to consider priorities for 1977 and 1978. The Task Force will remain a loosely knit group of individuals who may or may not represent institutions which are participating in the Title I program; therefore, they will continue to be an important source of feedback in the planning process for the duration of the energy education/conservation program.

SECTION III

THE COMPREHENSIVE PLAN

III-A. INTRODUCTION

This section contains a description of the major elements in a plan of action for energy education/conservation which would reach Tennessee residents from July 1, 1976, through December 31, 1978. The contents of this plan were derived from the suggestions of Task Force members. It is intended to be used by: (1) institutions of higher education wishing to submit proposals to the State Agency for Title I; (2) state agencies and other organizations wishing to incorporate elements of the plan into their own programs; (3) institutions/agencies wishing to submit proposals to other funding sources (e.g., TEO, ERDA, FEA, TVA); and (4) the Task Force during annual revisions which will reflect new problems, needs, and priorities. The plan should be especially valuable to the Tennessee Energy Office for use in preparing a program plan for FEA under the Energy Policy and Conservation Act.

III-B. PROGRAM PARAMETERS

Problems

Major problems which must be transmitted to and understood by residents of Tennessee are:

1. Our fossil fuels are being used up at a faster rate than alternative energy sources are being developed.

2. We waste money by using energy inefficiently and there

are numerous cost-effective ways to improve efficiency of use.

3. Severe environmental degradation results from current methods of energy production and use.

Other problems identified by the Task Force are listed in Appendix D.

Goals

The primary goal of the program is to develop a true understanding of the energy situation among Tennessee's adult population, resulting in more constructive, efficient use and conservation of energy. Three necessary and related subgoals to be met through the program are:

1. To develop a comprehensive energy education/conservation program for Tennessee adults.

2. To educate the population of Tennessee as to the most effective and efficient means of conserving energy.

3. To convince people that they can reduce their total energy consumption without changing their lifestyles significantly and to motivate them to take productive actions.

Other goals suggested by the Task Force are shown in Appendix D.

Needs

The most urgent needs of Tennessee residents are:

1. To be provided with accurate, objective, easy-to-understand information (a balance between technical language and laymen's terms) dealing with energy.

2. To understand the seriousness and true causes of the energy crisis and the choices available.

3. To receive technical assistance in attempts to conserve energy.

Additional needs are listed in order of importance in Appendix D.

Constraints

A variety of difficulties will be encountered during implementation of this plan. The most predominant constraint is the public's lack of knowledge about, or clear understanding of, the energy problem as it intersects their private lives and market decisions. A second constraint--and one which the plan hopes to alleviate--is the lack of cohesive energy policies at the national, state, and local levels. Two other constraints which are dealt with in this plan are: (1) a lack of objective, factual information which has resulted in a basic mistrust of information sources; and (2) a lack of knowledge about the short-term and long-term social, economic, and environmental costs and trade-offs of various future energy sources and conservation policies. All of these difficulties are complicated by apathy, lack of concern, and little incentive to do anything about the energy problem. Appendix D includes a list of other constraints.

Objectives

Tennessee's energy conservation/education program should help each participant:

1. Learn about alternative energy sources and their advantages and disadvantages.

2. Learn about the important role energy has in supporting our existing lifestyles and standards of living.

3. Learn about the use of energy in Tennessee, the United States, and other parts of the world.

4. Learn about the various techniques available to conserve energy.

5. Learn about important environmental, economic, and social implications which should be considered in developing energy resources.

6. Learn ways to determine whether existing energy program materials are factual or biased.

III-C. PROGRAM DESCRIPTIONS

Six specific program areas dealing with three major target populations (community leaders, consumers, and education) are described in this section.* A description of the coordinating institution and a summary of agencies which can provide supporting services to the program precede these discussions since both the coordinating institution and the supporting agencies are frequently referred to in the program descriptions.

Coordinating Institution

The most important purpose of the coordinating agency will be to establish and maintain a close working relationship among all participants in the program. Another purpose of the coordinating agency will be to establish and maintain a close working relationship among all participants in the program. The staff of the coordinating agency will provide those services (e.g., preparation of technical information) which will be of benefit to all participants, thus eliminating the needless duplication of services at each participating institution and providing back up support for their programs. The coordinating agency will be assisted in its tasks by a planning council made up of all project directors from institutions funded under Title I.

---

*Other target groups and program possibilities are shown in the PI analysis (Appendix D). Appendix B (materials distributed to Task Force members at the April 6 meeting) includes summaries and matrices of target groups correlated with program possibilities.

During the first year of funding, the coordinating agency will play a much more active role as program participant than it would in succeeding years. This will be necessary due to minimal funding, a short funding period, and limited lead time. Staff would be especially active in assisting other institutions develop and plan programs, obtain materials, provide technical assistance, identify speakers, develop proposals for the second year, and evaluate programs at the end of the first year. Since it is recognized that energy conservation is a relatively new area for many of the institutions that will be participating in the program, the coordinating agency staff would presumably be constantly "on-call" during the first year. Staff members will be available to participate in workshops, seminars, symposia, and classes. Many of the activities undertaken by UTEC during the first year will be absorbed by other institutions as the program grows.

The primary goal of the coordinating agency over the duration of the project is to integrate the programs of the participating institutions, ensuring that together they fulfill the statewide program objectives as stated in the plan. Essential in meeting this objective are the following activities:

1. Maintain a communications link among the participating agencies through a newsletter which introduces participants to new materials which can be used at their institutions, contains reports of activities submitted by participants, and informs participants of meetings during the program year.

2. Provide all the elements of the comprehensive information center and data base, including technical assistance, resource lists, and program planning expertise.

3. Maintain a communications link through the informal mechanism of a two-way WATS line serving the State of Tennessee. This "hotline" would provide immediate contact between the coordinating agency and the participating institutions, as well as provide a service to the citizens of Tennessee by establishing a single central point of contact to which they can bring their problems and questions.

4. If requested, maintain such records and reports as are required by State Agency for Title I (HEA) during the funding period.

Specific activities for the first year will include:

1. Maintain a resource materials center that will be responsive to participating institutions. Based on the evaluation of the success of this activity during the first year, similar material

centers may be established on a regional basis the second and third years.

2. Identify and arrange for use of existing delivery systems to serve programs funded under Title I, thus avoiding duplication of efforts.

3. Evaluate existing media campaigns and programs to avoid excess spending in this area during the first year. This evaluation will give direction in the second year as to the need for publicity.

4. Maintain a file of resource personnel (speakers and technical assistants) who can serve the entire state. This file will be made available to participating institutions in the second and third years of the program if it is determined that these files are an effective means of meeting the needs of target groups.

5. Develop a logo; print letterhead and envelopes; design newsletter format; distribute these materials to institutions.

6. Remain in contact with Task Force members throughout the year, bringing them together at the end of the first year in a planning session to discuss second year programming.

7. Arrange for Planning Council sessions on a bi-monthly basis during the first year.

Cooperating Agencies and Delivery Systems

The Department of Economics and Community Development. The DE&CD is a branch of the state government which is in a position to offer advice to industries about their energy problems. As such, it can serve as a delivery mechanism to reach industrial and business leaders in Tennessee. The DE&CD has its base office in Nashville, Tennessee, and collaborates with the Center for Industrial Services of the UT Institute for Public Service in the area of energy in industry.

Douglas-Cherokee Economic Authority. Douglas-Cherokee is an example of an economic development agency funded through the state. The agency has a full-time consumerism director based in Morristown. Although Douglas-Cherokee is not able to directly participate in the program, it is willing and interested in serving as a point of dissemination for materials which are developed through the energy education/conservation program, especially those documents directed toward very low income people.

Energy Opportunities Consortium. The Consortium is made up of representatives from the Knoxville Chamber of Commerce, The University of Tennessee, Oak Ridge National Laboratory, and the Tennessee Valley Authority. It can provide an excellent source of speakers and persons who can provide technical assistance to programs funded under Title I. The EOC has its base office in Knoxville, Tennessee.

Media. The Knoxville News-Sentinel and WETE radio in Knoxville have expressed interest in the development of the state plan and should be able to assist with publicity and special information programs. Other possibilities for using the media will be explored including the public broadcasting stations and other newspapers across the state.

Nashville Urban Observatory. The Urban Observatory , with a a distribution area covering middle Tennessee, can serve as a delivery mechanism for the program. It is an important means of reaching business, industry, and local officials through its consortium of higher education institutions.

Oak Ridge Associated Universities. ORAU can assist Title I in publicizing its program through it's media campaigns. ORAU will make available to participating institutions materials ("Energy Today and Tomorrow") which can be used with citizens' groups; its computer simulator which can determine energy bills based on an individual's use of electricity;and speakers and other experts who can participate in workshops.

Oak Ridge National Laboratory. ORNL has many resources which can be made available to the participating institutions. These resources include access to their data base and energy information center, experts in technical assistance, speakers, and technical reports which will be available for translation into non-technical language.

Tennessee Energy Office. TEO is one of the more enthusiastic agencies which will be cooperating with Title I in implementing the state plan. It is extremely interested in these efforts and have contributed greatly during the planning process. TEO staff will be available as speakers, technical assistants, and distributors of materials developed by program participants.

Tennessee State Department of Education. The SDE will continue its close working relationship with UTEC and the Title I Agency by encouraging teachers to attend inservice programs in the area of energy conservation. The state department will also assist with the dissemination of materials to teachers in local school systems.

Tennessee Valley Authority. The TVA has a wealth of energy education/conservation materials which can be utilized in program development. In addition to material, it will provide training expertise, speakers, and technical assistance to participating institutions.

Community Leaders: City and County Officials

Even if the federal government were to develop a comprehensive energy "policy," much of the responsibility and authority would remain vested at lower levels of government which are highly important in influencing consumption patterns. This energy education/conservation plan attempts to meet this growing public concern by assisting city and county officials in producing, developing, and implementing effective energy management programs. Hopefully, programs suggested for this target population will result in altered patterns of governmental consumption, new or improved public policies, and examples of energy conservation and efficiency which will serve the entire community.

Through a combination of face-to-face meetings, "hands-on" demonstrations, specially developed materials, and technical back-up information sources, city and county officials and their staffs will develop an awareness of energy problems and solutions and design programs which are specific enough to facilitate productive action in their localities. Government staff members will mostly be drawn from the administration and departments of health/environment/welfare, housing, schools, and transportation. Materials developed for these people should be concerned with energy management in operations, codes and standards, taxation, regulation, and licensing.

Programs for local officials should be designed to help develop sound energy management programs which deal with their operations, procedures, and policies. Such programs, if properly implemented, can serve as examples to the entire municipality or county. For example, an energy management program in a large school plant which concentrates on lighting, heating and cooling, facilities, transportation, and purchasing policies can have a positive community-wide effect. Since schools consume a large portion of state and local government revenues, any reduction in their operating costs through an energy management program will be highly visible and economically beneficial.

Institutions of higher education which plan to work with city and county officials in energy management should work within their institutional service areas. It is strongly recommended that these institutions first carry out and document successful energy management programs on their campuses. Training sessions should be held for government officials and their staffs who will return to their departments and serve as resource people in developing and implementing energy management programs. These training sessions will require the development of special material (such as case studies) of direct relevance to the constituents. Essential to the success of these programs will be the creation of a statewide Energy Information Service to serve as a back-up resource, the use of existing delivery systems such as UT's Municipal Technical Advisory Service and the Center for Government Training, and the assistance of the Environment Center's staff in developing materials.

Community Leaders: Business and Industry

Programs funded under Title I should be directed toward chief executives in business and industry with the intent that they will be most effective in reaching other people within their organization. It is expected that face-to-face encounters (utilizing seminars and resource speakers) would be the best way to reach this target population, probably with the assistance of trade associations. It is expected that the major centers of industrial concentration in Tennessee will be the best places in which to initiate these programs. However, some of the most interested and important constituents, especially small industries, may be found scattered across the state.

Programs which attempt to reach executives in business and industry should be pilot-tested and evaluated to determine the extent to which these individuals respond to the programs. This process would determine how information moves from top level management to middle level management and the resulting actions which take place. For example, does the program, through training these key resource people (executives), result in actions within the firm or industry, the implementation of internal energy management programs, or the specific assignment of personnel within the organization to conservation programs?

The extensive development of special materials is not anticipated for this group since numerous programs are available for pilot-testing. (The Environment Center can assist participating institutions in identifying possible program materials). Important to the success of this program is the availability of experienced resource people from higher education, industry, and government who can work effectively with business executives.

Community Leaders: Recognized Community Groups

It is generally recognized that, with proper motivation and a good base of information, community groups can be very effective in bringing about productive change within their communities. Therefore, programs will be developed for community group leaders who will be trained to be "resource people" through special workshops held by the participating institutions. At these workshops, the "volunteers" (resource people) will be provided with information which can be used at regularly scheduled meetings of their community groups. The objectives of these presentations will be to communicate the reality of the energy problem to the groups and to help them understand their roles in responding to it. Group members will be shown how, as individuals, they can contribute and reasons for them to do so. As a group, they can help raise the level of energy awareness through community energy surveys, energy fairs, and coverage through the local press, radio, and television. Members of the group who are trained through the workshops can join the list of resource personnel in a regional speakers' bureau. All of these activities together will result in impacts on the community which should be evaluated, perhaps by pre- and posttests at group meetings, coupled with projects on what happened following the meetings. It is suggested that pilot programs be established in different sized communities. The influence of community groups varies widely from one community to another. Methods should be developed to identify the most promising route for a given community. The projects should be designed to disclose patterns of response (e.g., a variety of community groups in a variety of communities).

Consumers: General Public

Of all the target groups considered for the proposed statewide energy education/conservation program, the individual consumer is probably the most difficult to reach. One reason is the diversity of the group. Highly motivated groups cannot be reached through the same programs, materials, and publicity as those with low motivation (and frequently low income). The low income people exist more on a day-to-day basis ("hard living"); they do not have the "extra cash" to put into energy conservation techniques, home improvements, and more expensive but lower life-cycle cost appliances;

they seldom think in terms of spending money today in order to save money tomorrow. High income consumers, on the other hand, are usually not as interested in saving a few dollars on their monthly utility bill as they are in long-term returns on their investments. It may be the middle income consumer, hard hit by rising energy costs, who is most willing to make adjustments in energy use in order to save money.

In attempting to reach these various groups, it must be recognized that the low income consumer is rarely a member of a community organization, while the middle income consumer likely belongs to several and has access to a variety of information sources and assistance. The high income consumer probably has a great deal of influence in the community, and so can be extremely effective in bringing about change, but might be difficult to motivate toward becoming deeply involved personally in a formal program.

In light of the sharply different needs of various sectors of the general public, programs will be primarily designed for middle income consumers (ninth grade reading level) with the assumption that information directed toward this group will also reach some low and high income consumers.

Tennessee is a rural state and relatively poor, but most homes have a television, radio, and telephone. This means that the consumer can be reached (motivated) through media programs and that the consumer can potentially obtain assistance by simply picking up the telephone (e.g., a toll-free number). As information to enable action becomes easier to obtain, the motivational level required to induce action lowers. Such outreach methods will require the establishment of information centers which will incorporate "hot line" telephones, resource materials and personnel, technical assistance, and speaker's bureaus. This personalized approach to meeting the needs of consumers on a one-to-one basis is the best way to communicate answers to the basic questions faced by consumers today: "Why should I conserve energy?" and "How do I conserve energy in a way that can save me money?"

Much confusion still exists about the implications of "conservation." Some people think conservation connotes constraint, curtailment, and economic penalty rather than simply the process of maintaining a given amenity level at minimum cost. Much work needs to be done in communicating these basic principles. The personalization of one-to-one telephone link to the public seems to be one of the most promising avenues. It would also be important to combine "hot lines" with use of the media through live "talk shows" where the energy conservation expert answers questions phoned in by the listening/viewing audience.

The second major component of a program to reach the general public (individual consumer) is based upon extensive use of the media. Media programs can be designed to "shock" the public into realizing that there is a real problem, not only in terms of price but also in terms of oil imports. Because preparation of such programs is an expensive and time-consuming undertaking, a preliminary evaluation should be conducted of existing programs. Such an evaluation would not only eliminate duplication of efforts, but avoid "glutting" the media with too much information. For example, the Tennessee Energy Office is planning an intensive campaign in preparation for its "Energy Conservation Month" in June, 1976, and FEA's public service announcements are seen frequently on local television stations. The possibility of coordinating Title I publicity with other publicity campaigns should be considered--perhaps local television or radio stations could donate 10-second spots to an announcement of the "hot line" telephone number of the Energy Information Center following the nightly news.

Some local Agricultural Extension Agencies sponsor successful 30-minute television programs each week dealing with agricultural innovations and specific problems faced by the farmer. Considering the fact that energy problems are faced by everyone, regardless of their geographical location, this would be an excellent way to transfer technology and bring about change on a community level. Content might include demonstrations of retrofitting a home for energy efficiency, adding a solar water heater to a home, or conducting and energy audit.

Because "citizens" are the most difficult "group" to reach, programs directed toward them will cost the most. Therefore, all of these suggested outreach methods should begin as pilot programs. One information center should be established the first year (possibly associated with the UT Environment Center and located at the TECH Program facilities between Knoxville and its Municipal Airport).

If the information center services prove effective, the concept should be expanded later to include regional centers. The media programs should also start out on a pilot basis, and not be undertaken without careful evaluation of existing programs.

Consumers: Contractors, Architects, and Engineers

Individual contractors, architects, and engineers form a special group of consumers. It includes the individual who wants to remodel or build his own home and act as his own contractor; the engineer, architect, or contractor who is self-employed and perhaps does not have access to a special library or who may live in a small community which does not have regular meetings of professional associations. These people must be reached through a combination of demonstrations (e.g., buildings in the local community which have been retrofitted) and short courses or workshops (e.g., on the status of advanced design and engineering for more energy-efficient structures). This outreach method would probably require follow-up help with assistance in individual energy audits, development of energy management programs, and application of energy conservation building techniques. It would also probably result in a new "subgroup" of individuals within the community which is particularly interested in and capable of furthering the cause of energy conservation and efficiency and which, as a result, would transmit its interest and enthusiasm to other groups in the community.

Materials for these workshops would mostly be those already available from various technical publications and from agencies (e.g., the NBS EPIC Handbook, HUD's "In the Bank or Up the Chimney," and FEA's "Project Retro-Tech"). These materials would be pilot-tested the first year and, if successful, replicated in later years of the project. Workshops or courses should be held at local higher education institutions with trained instructors.

Educators: Teachers

If we are to implement an effective comprehensive energy education/ conservation program for adults in Tennessee, accurate energy concepts and principles must be incorporated into all levels of the educational process. This may require the preparation of new guidelines for teachers (e.g., State Department of Education rules and regulations, textbook selection criteria, teacher certification) and the development and use of new instructional material and tools. There is no doubt that it will require better preparation of new teachers as well as retraining thousands who already teach in Tennessee colleges, universities, and public and private schools.

Many of the higher education energy courses or workshops which currently exist at Tennessee higher education institutions offer only technical information to teachers. Studies have shown that, in addition to technical or semi-technical background on the energy situation, teachers need information about available teaching resources (curriculum guides, games, audio-visual aids, annotated bibliographies, technical assistance, speakers, and field-trip possibilities). They also need to know some of the newer teaching techniques (e.g., games, field studies, simulations) and what types of instructional activities have proved successful in other places during the past.

Teachers will play a significant role in ultimately solving energy problems. They can reach thousands of students with a "conservation ethic." Studies have shown that ideas instilled during childhood can easily become habits. Students can carry the "conservation ethic" home where it can spread to other members of the family. This results in a tremendous "multiplier effect" and should be especially important for children in primary school.

Training the many educators in Tennessee to incorporate a meaningful discussion of the energy situation and need for conservation is a monumental, long-range task. Therefore, three programs (one-day inservice training, two-week course, and one-quarter/semester course) should be implemented in all geographic areas of the state during the next three years. Each program should be carefully evaluated at the end of each year and appropriate improvements made in both workshop format and instructional assistance.

III-D. SUGGESTED PROGRAM TITLES

This section contains suggested titles of programs which could be implemented during the project period (July 1, 1976, through December 31, 1978), though not necessarily by Title I, HEA. The first 10 titles (not prioritized) are recommended for funding consideration in 1976 and are discussed in detail in Section III-E (following).

1. Energy Education/Conservation Program for Community Leaders: City and County Government Officials

2. Energy Education/Conservation Program for Community Leaders: Executives and Middle Management Employees of Business and Industry
3. Energy Education/Conservation Program for Community Groups
4. One-Day Energy Education/Conservation Inservice Training Program for Teachers (K-12)
5. Two-Week Energy Education/Conservation Course for Teachers (K-12)
6. One-Quarter/Semester Energy Education/Conservation Course for Teachers (K-12)
7. Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using FEA's "Project Retro-Tech" Program
8. Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the NBS "EPIC Handbook"
9. Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the UT-ERDA "Energy Management" Program Material
10. A Short Series of Half-Hour Television Programs on Constructing and Retrofitting Homes and Buildings for Energy-Conservation-Conscious Consumers
11. Energy-Environment Simulation Program
12. Energy and Environment Course in Physics
13. Regional Energy Information Centers
14. Special Energy Education/Conservation Program for High School Students During Summer
15. Energy Education/Conservation Materials Fair For Educators
16. University Seminar on Energy Issues
17. Energy Education/Conservation Program for Legislators
18. Workshop to Train Teachers on Use of "Teacher's Guide for Energy Conservation"
19. Energy Education/Conservation Workshop for Managers for Loan Associations
20. Regional Newsletter on Energy Education/Conservation

21. Calendar on Energy Education/Conservation
22. Awards Program for Energy Education/Conservation
23. Poster Contest on Energy Education/Conservation
24. Technical Assistance Program for Energy Education/Conservation
25. Speaker's Bureau for Energy Education/Conservation
26. Computerized Energy Audit Program
27. Energy Education/Conservation Case Studies
28. Energy Education/Conservation Position Papers
29. Energy Education/Conservation Game
30. Energy Education/Conservation Brochure
31. Annotated Bibliography on Energy Education/Conservation
32. Energy Education/Conservation Workshops for Home Economics Teachers
33. Energy Education/Conservation Materials Fair for Builders, Architects, Designers
34. Workshops to Train Teachers/Administrators on Use of "Home Economics Energy Education/Conservation Curriculum Guide"
35. Development of an Interdisciplinary Course Offering for Energy Education/Conservation
36. Energy Education Orientation Program for Journalists, Communication Designers, and Commercial Artists
37. Energy Education Fact Sheets
38. Short TV Spots on Energy Education/Conservation
39. Energy Education/Conservation Seminar for Representatives of the State Department of Education

III-E. PROGRAMS RECOMMENDED FOR FUNDING CONSIDERATION IN 1976

Ten programs have been determined by the Task Force members and the planning staff as being equally important priorities for first-year funding. Titles of these programs were given in Section III-D; summaries are given in this section. Final funding decisions will be made by the State Agency for Title I. Higher education institutions interested in program development are encouraged to select one or more of the program titles and submit a detailed proposal to the State Agency for funding consideration. (Proposal guidelines are included in Appendix F. The Director of the State Agency will forward to each institution an additional set of the proposal guidelines with a copy of this plan.) To ease readibility, each program begins on a new page.

Energy Education/Conservation Program for Community Leaders: Government Officials

Objective: To assist city and county government officials to plan, develop, and implement effective energy management programs.

Outreach method: Develop and use special material in training city and county officials about ways to conserve energy through purchasing procedures; lighting practices; heating and cooling practices and maintenance; policies (procedures, regulations, standards); and transportation.

Activities: Special materials would be developed for local officials on ways to conserve energy through purchasing, incentives, lighting, heating and cooling systems, policies, and transportation. This material would be especially tailored for officials having responsibility for city and county (1) administration, (2) health care, (3) environmental improvement projects, (4) welfare programs, (5) housing, (6) schools and other city buildings, and (7) transportation and/or highways. Training workshops would be conducted in cooperation with organizations which have already been established to assist city and county governments in implementing training programs (e.g., the UT Municipal Technical Advisory Service and/or the Tennessee Municipal League). Program effectiveness would be determined by measuring the degree to which governmental energy consumption patterns change as a result of development and implementing new policies.

2

Energy Education/Conservation Program for Community Leaders: Executives and Middle Management Employees of Business and Industry

Objective: To plan, implement, and evaluate an energy conservation program for executives and middle management employees of business and industry.

Outreach methods: (1) Establish a speaker's bureau to reach program constituents with energy conservation information through seminars and workshops; (2) utilize graduate students in conducting energy audits and preparing energy management plans for business and industry; and (3) train resource personnel on how to conduct energy audits, plan and implement energy conservation programs, or develop energy management plans.

Activities: Existing material could be used in the implementation of this program (e.g., energy audit material developed at The University of Tennessee). Selected resource people would be trained to conduct energy audits and to plan and implement energy conservation or management programs. The target group (constituents) responsible for implementing programs recommended by the project staff includes executives and middle management employees. A primary measure of success would be the extent to which executives and middle managers respond by supporting the implementation of conservation measures, participating in seminars and workshops, and assigning energy conservation responsibilities to personnel within their organizations.

Energy Education/Conservation Program for Community Groups

Objective: To develop, implement, and evaluate an energy education/conservation program for community groups.

Outreach method: (1) Prepare material and train volunteers so they can become speakers on energy education/conservation; (2) develop special packaged presentation (four to six); and (3) take the special presentations to community group meetings through the establishment of a Speaker's Bureau.

Activities: Four to six 20-minute presentations would be developed and used with selected community groups within the institution's service area. A Speaker's Bureau would be formally established made up of trained volunteers. Criteria would be determined for selecting speakers and specific target groups in the community. Speakers would be trained during workshops conducted by the institution. Some topics which might be considered in the presentation include:

- Facts and Myths About Energy
- Economic Growth and Energy Development
- Alternative Technologies--What Are They and When Will They be Ready?
- Rates and Load Management
- What's Going on at the Different Levels of Government?
- Why Should I Do Anything? Something?
- Economic Incentives for Conservation (Why Conserve?)
- Where Do We Go From Here? What Can We Do Now To Conserve?
- Energy Conservation Projects for Individuals and Groups

Short pre- and posttests would be developed and used to evaluate program effectiveness at the time the presentations are given and at a later date.

One-Day Energy Education/Conservation Inservice Training Program for Teachers (K-12)

Objective: To develop, implement, and evaluate a one-day energy education/conservation inservice training program for teachers (K-12).

Outreach method: Develop and use material at a one-day inservice training program.

Activities: A packet of materials developed on the interrelationships of the "Three E's" (Energy, Environment, Economics) will be distributed to participants in the morning. Under each of three areas would be considered the following topics: technology; conservation; end use; politics; renewable resources; non-renewable resources; and cost. One-hour session on each topic would be held. The afternoon session would be designed to familiarize teachers with existing materials and/or resources. These would include games, audio-visual aids, human resources, facilities, agencies, equipment, money (funding sources), field trip possibilities, and selected readings. At least five one-day programs would be held at elementary and secondary schools in the region served by the institution of higher education undertaking these activities. Short pre- and posttests will be developed and used to evaluate program effectiveness.

5 Two-Week Energy Education/Conservation Course for Teachers (K-12)

Objective: To develop, implement, and evaluate a two-week energy education/conservation course for teachers (K-12).

Outreach method: Develop and use material in a two-week, intensive course for teachers (K-12).

Activities: A packet of materials concerning the interrelationships of the "Three E's" (as described in Program 4's activities) would be developed and distributed to participants in the program. Participants would also be acquainted with games, audio-visual aids, human resources, facilities and agencies, equipment, field trip possibilities, funding sources, and selected readings. Course credit might be given on the basis of a joint decision by the institution and the State Department of Education. The course should be offered during the summer as well as the regular year and should be open to educators on a statewide basis. Pre- and posttests would be developed and used to measure program effectiveness.

6

One-Quarter/Semester Energy Education/Conservation Course for Teachers (K-12)

Objective: To develop, implement, and evaluate a one-quarter/semester energy education/conservation course for teachers (K-12).

Outreach method: Develop special materials and use them in a one-quarter (or semester) course for teachers (K-12).

Activities: A special packet of materials dealing with Energy, Environment, and Economics will be developed and used in the course. (See the description of these materials and activities in Programs 4 and 5.) Course credit might be given as determined by a joint decision of the institution and the Tennessee State Department of Education. The course should be offered on a year-round basis, open to all teachers in the State. Pre- and posttests would be developed and used to measure program effectiveness.

7

Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers using FEA's "Project Retro-Tech" Program

Objective: To educate individual consumers on energy use habits and provide them with energy conservation materials, information, and technical assistance.

Outreach method: Hold group training sessions (workshops) which use material developed by the Federal Energy Administration for its "Project Retro-Tech."

Activities: A leader will be trained in the use of the FEA materials and will transmit the related information to the participants using hands-on demonstrations and visits to retrofitted structures. The success of the FEA program will be evaluated and compared with other workshops using different materials.

8

Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the NBS "EPIC Handbook"

Objective: To educate individual consumers on energy use habits and provide them with energy conservation materials, information, and technical assistance.

Outreach method: Hold group training sessions (workshops) which use material developed by the National Bureau of Standards in its "Energy Conservation Program Guide for Industry and Commerce" Handbook.

Activities: A leader will be trained in the use of the NBS materials and will transmit the related information to the participants using hands-on demonstrations and visits to retrofitted structures. The success of the EPIC program will be evaluated and compared with other workshops using different materials.

9 Energy Education/Conservation Training for Homeowners, Contractors, Architects, and Engineers Using the UT-ERDA "Energy Management Program" Material

Objective: To educate individual consumers on energy use habits and provide them with energy conservation materials, information, and technical assistance.

Outreach method: Hold group training sessions (workshops) which use material developed by The University of Tennessee under a contract with the Energy Research and Development Administration (ERDA) for an interdisciplinary course in Energy Management.

Activities: A leader will be trained in the use of the UT-ERDA materials and will transmit the related information to the participants using demonstrations, energy audits, and visits to retrofitted structures. The success of the UT-ERDA program will be evaluated and compared with other workshops using different materials.

A Short Series of Half-Hour Television Programs on Constructing and Retrofitting Homes and Buildings for Energy Conservation-Conscious Consumers

Objective: To acquaint and educate consumers about wise energy habits, energy information sources, and energy conservation designs, materials, and systems.

Outreach method: Use mass communications (television) to reach middle- and low-income consumers, with follow-up through a "hotline" and information center.

Activities: Following the example of the Agricultural Extension Service and the "Consumer Survival Kit," develop a short pilot series (minimum of two) half-hour television programs, possibly for the public broadcasting channel, which would demonstrate techniques for retrofitting homes and buildings to be more energy efficient. The goal would be to introduce consumers to available practices and show them where to go for additional technical assistance and information. The "hotline" and information center would presumably be located in the Environment Center during 1976 since it already houses an unusually extensive collection of relevant material.

APPENDICES

APPENDIX A

MATERIAL CONCERNING THE FIRST MEETING OF THE TASK FORCE
DECEMBER 8, 1975

Correspondence
Agenda
List of Materials
Worksheets
Commitment Form

THE UNIVERSITY OF TENNESSEE

STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965

106 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

October 24, 1975

The HEA Title I Community Service Program will be phasing out the designated program priorities of Consumer Education and Community Growth Policy and Leadership Development during the current year. Calendar year 1976 will be the fifth and final year of HEA Title I support of the Tennessee Statewide Consumer Education Program to be funded this fall, and the last eight project segments of Community Growth Policy and Leadership Development will be completed by June 30, 1976.

In developing new program directions, the State Agency plans to work closely with institutions who are interested in participating in community service programming under HEA Title I. Initially, we are interested in exploring the potential for a future program direction in the energy/environment education area as an outgrowth of the Tennessee Statewide Consumer Education Program. The State Agency will rely on The University of Tennessee Environment Center to take the lead in looking at Energy Education as a program priority under HEA Title I. We are enclosing a copy of our September 17 letter encouraging a prospectus/proposal from the Environment Center on how we should develop a Statewide Energy Education Program.

Although we want to stimulate institutional participation in HEA Title I and other community service programming, we want this participation to be consistent with each institution's commitment, interests, special resources and long range educational goals. There would probably be a continuing need for Energy Education (as there is for Consumer Education) beyond the available HEA Title I funds and period of support. We would try to assign a top priority to funding those institutions that had a long range interest in the area of Energy Education.

Title I . . . Community Service and Continuing Education Programs
A UNIT OF UT'S INSTITUTE FOR PUBLIC SERVICE

We hope to start moving on this in early November. Please notify the State Agency by November 3 if your institution is interested in working with us in this developmental process. If there is an interest, you as Title I Institutional Representative should begin to identify potential project resource personnel. We would probably hold an initial exploratory/planning session by mid-November to determine needs, program potential, and planning procedures.

We look forward to working with your institution in developing new program directions for the HEA Title I Community Service Program in Tennessee. Please call on us if we can be of assistance.

Cordially yours,

PAUL R. MARTIN, JR.
Director

PRM/dcf

Enclosure

THE UNIVERSITY OF TENNESSEE iPS STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965

106 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

November 14, 1975

Thank you for your response to our letter of October 24 concerning our efforts to determine the potential for developing a Statewide Energy Education Program under the HEA Title I Community Service Program.

The State Agency for Title I and The University of Tennessee Environment Center are sponsoring a planning session for interested institutions on Monday, December 8, 1975, at the Carolyn P. Brown Memorial University Center on the Knoxville campus of the University. We invite your institution to send a representative to this meeting if you are interested in working with us on this program direction under HEA Title I. Your representative should be the resource person at your institution who would be involved in a substantive way in this program. The State Agency will reimburse the eligible travel expenses of your representative in participating in this meeting.

In order to facilitate a productive session, we plan to distribute in early December a packet of background materials, the UT Environment Center prospectus for this program direction, and the tentative meeting agenda for review by your designated representative. If you will not be attending this work session, please advise the State Agency by November 25 who will represent your institution.

Cordially yours,

PAUL R. MARTIN, JR.
Director

PRM/dcf

Title I . . . Community Service and Continuing Education Programs
A UNIT OF UT'S INSTITUTE FOR PUBLIC SERVICE

THE UNIVERSITY OF TENNESSEE IPS STATE AGENCY FOR TITLE I HIGHER EDUCATION ACT OF 1965

106 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

November 26, 1975

This is a followup to our earlier correspondence concerning the planning session of the Task Force on Statewide Energy Education Program scheduled for December 8, 1975, on the Knoxville campus of The University of Tennessee. This meeting will be held in Room 225, Carolyn P. Brown Memorial University Center. Parking will be available at The University Center Parking Garage for those who drive.

For your information we are forwarding the tentative agenda, The University of Tennessee Environment Center prospectus for this program direction, and the U.S. Commerce Department booklet "Making the Most of Your Energy Dollars in Home Heating and Cooling." Please review these materials, bring them with you, and come prepared for a productive work session. A packet of additional materials will be distributed at the meeting.

We plan to start the session promptly at 9:00 a.m. For those who have long distances to travel, we suggest you arrive on Sunday night. We are pleased to have your participation and look forward to seeing you on December 8.

Cordially yours,

PAUL R. MARTIN, JR.
Director

PRM/ste
Enclosures

STATEWIDE ENERGY EDUCATION PROGRAM TASK FORCE MEETING

TENNESSEE STATEWIDE CONSUMER EDUCATION PROGRAM

December 8, 1975

AGENDA

Time		
8:30-9:00		REGISTRATION; COFFEE AND DOUGHNUTS
9:00-9:20	I.	Paul Martin: Introductions A. Self-Introduction and Welcome B. Participant Self-Introduction C. History of TSCEP, Energy Education Component and Future of Program D. Purpose of Meeting: Development of Energy Education Program Plan with Assistance of Task Force
9:20-9:40	II.	John Gibbons: Introduced by Paul Martin Presentation on: A. Energy Situation World/Nation/Region/State and its Relation to Economic, Social, and Environmental Goals B. Programs at UTEC; Questions
9:40-10:05	III.	Jon Wert: Introduced by John Gibbons Introduction to film entitled "Critical Choices" prepared by U.S. Department of Commerce. The purpose is to help give all members a basic understanding of the energy problem in the U.S.
10:05-10:20	IV.	Claudia Viken: Introduced by John Gibbons Tennessee Energy Office Presentation on programs of TEO
10:20-10:40		BREAK
10:40-10:55	V.	Joe Minor: Introduced by John Gibbons Tennessee Department of Education Presentation on energy education/conservation efforts of the Department
10:55-11:05	VI.	Jon Wert: Brief discussion of current educational materials A. UTEC Guide B. NSTA C. Others
11:05-11:15	VII.	Nancy Watkins: Introduced by Jon Wert Presentation on teacher survey; energy education needs as indicated by requests to UTEC; display of materials developed through TSCEP.

11:15-11:30 VIII. John Gibbons: Role of Task Force

A. Help identify energy education/conservation problems, constraints, needs, and overall program goal.

B. Determine what target groups are in need of material or technical assistance in implementing energy conservation programs.

C. Determine what individuals and groups can do to conserve energy (program possibilities) and strategies for implementing programs.

11:30-12:30 LUNCH (CREST ROOM)

IX. John Gibbons/Jon Wert/ Nancy Watkins
Divide into three groups and brainstorm following areas:

12:30-1:30 A. Task A - What are the major energy education/conservation problems, needs, and constraints?

1:30-2:00 B. Task B- What target groups (age/grade/occupation) need material and technical assistance in order to implement energy education/conservation programs?

2:00-2:30 C. Task C- What can individuals and groups do to implement energy education/conservation programs (program possibilities)?

2:30-2:45 X. Paul Martin: Summary and Future Plans

A. Use of results in planning
B. UTEC lead role
C. Possibilities of programs at higher education institutions
D. Written commitments from those who agree to continue on Task Force
E. Expenses
F. Questions
G. Adjournment

TASK FORCE MEETING

STATEWIDE ENERGY EDUCATION PROGRAM

Sponsored by:

The State Agency for Title I
and
The UT Environment Center

December 8, 1975

The following materials are included in this packet:

1. The Agenda
2. *Exploring Energy Choices: A Preliminary Report.* Energy Policy project of the Ford Foundation, 1974.
3. "Solar Technologies" by Rank von Hippel and Robert H. Williams. Reprinted from the November, 1975, issue of the *Bulletin of the Atomic Scientists*.
4. "Why Atomic Power Dims Today." Reprinted from the November 17, 1975, issue of *Business Week*.
5. "11 Ways to Reduce Energy Consumption and Increase Comfort in Household Cooling." The Office of Consumer Affairs, 1973.
6. "7 Ways to Reduce Fuel Consumption in Household Heating . . . Through Energy Conservation." The Office of Consumer Affairs, 1972.
7. "Tennessee and Energy--Research and Demonstration for Conservation and Production." The Energy Task Force in Knoxville.
8. "In the Bank . . . Or Up the Chimney." -- if available.
9. UT Environment Center Brochure.

TASK A - WORK SHEET 1

Examine the area of energy education/conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or will be encountered as a result of problems/needs at each level
1. Yourself (as an individual)				

*Rating: 1 - First priority
2 - Second priority
3 - Third priority

TASK A - WORK SHEET 2

Examine the area of energy education/ conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or will be encountered as a result of problems/needs at each level
2. The Community (your) neighbors; citizens)				

*Rating: 1 - First priority
2 - Second priority
3 - Third priority

TASK A - WORK SHEET 3

Examine the area of energy education/ conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or will be encountered as a result of problems/needs at each level
3. The organization where you work or with which you are involved and its employees				

*Rating: 1 - First priority
2 - Second priority
3 - Third priority

TASK A - WORK SHEET 4

Examine the area of energy education/ conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or will be encountered as a result of problems/needs at each level
4. Other organizations and their employees (industries, schools, local governments)				

*Rating: 1 - First priority
2 - Second priority
3 - Third priority

TASK A - WORK SHEET 5

Examine the area of energy education/ conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or wil be encountered as a result of problems/needs at each level
5. The State of Tennessee (governments, citizens, business, education, etc.)				

*Rating: 1 - First priority
2 - Second priority
3 - Third priority

TASK A - WORK SHEET (Summary)

Examine the area of energy education/ conservation with respect to:	RATING*	PROBLEMS Identify both specific and general problems encountered at each level	NEEDS Identify needs either as related to or separate from problems	CONSTRAINTS Difficulties which have been or will be encountered as a result of problems/needs at each level
1. Yourself (as an individual)				
2. The Community (your) neighbors; citizens)				
3. The organization where you work or with which you are involved and its employees				
4. Other organizations and their employees (industries, schools, local governments)				
5. The State of Tennessee (government, citizens, business, education, etc.)				

*Rating:
1 - First priority
2 - Second priority
3 - Third priority

STATEMENT OF OVERALL PROGRAM GOAL:

TASK B - WORK SHEET

Directions: List all the groups you can think of which could/should be reached through the proposed program. Rate each group as to the degree of urgency with which it needs to be reached, describe it, and give suggestions for reaching its needs.

TARGET GROUP	RATING*	AGE AND EDUCATIONAL LEVEL	OCCUPATION/ ORGANIZATION	NUMBER OF PEOPLE IN GROUP	Suggested Types of Program(s) to Meet Its Needs	Suggested Types of Materials (i.e., pamphlets, posters)	Suggestions for Content (topics)	Suggested Types of Technical Assistance	Ways to Reach the Grou

*Rating:
1 - First priority
2 - Second priority
3 - Third priority

USE ADDITIONAL SHEETS IF NECESSARY

TASK C - WORK SHEET

Directions: Under "Implementing Agent" list suggestions of people, groups, organizations, networks, etc., which could be of assistance in implementing the proposed program. In the remaining columns, list the contributions which each agent could make to the program.

IMPLEMENTING AGENT	DEGREE OF ASSISTANCE*	PERSONNEL	FACILITIES	PROGRAM/MATERIALS (ACTIVITIES)	DISSEMINATION METHODS AND EXISTING DELIVERY SYSTEMS

*Degree of Assistance:
1 - Could be of maximum assistance
2 - Could be of some assistance
3 - Could be of minimal assistance

USE ADDITIONAL SHEETS IF NECESSARY

COMMITMENT OF TASK FORCE MEMBERSHIP

TITLE I ENERGY EDUCATION PROGRAM
December 8, 1976

Name ______________________________

Address ______________________________

____

____

Telephone ______________________________

Please check one of the following:

___ *I am willing to serve as a member of the Task Force for the Statewide Energy Education Program in Tennessee.*

___ *I will be unable to serve as a Task Force member for the Statewide Energy Education Program in Tennessee.*

___ *I am not sure at this time whether I will be able to serve as a Task Force member for the Statewide Energy Education Program in Tennessee, but I will notify you of my decision before January 1, 1976.*

---

In addition to, or in place of, myself, I would like to suggest that the following person(s) be considered for membership on the Task Force:

____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________

APPENDIX B

MATERIAL CONCERNING THE SECOND MEETING OF THE TASK FORCE
APRIL 6, 1976

Correspondence
Procedures and Steps in Program Definition
Program Parameters
Matrices
Agenda

THE UNIVERSITY OF TENNESSEE iPS STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965

March 19, 1976

106 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

Your assistance over the last several months as a member of the Tennessee Energy Education Program Task Force has been greatly appreciated. Our next request is that you attend the second Task Force meeting to be held on Tuesday, April 6, at The University of Tennessee Faculty Club (2704 Kingston Pike, Knoxville) from 8:30 a.m. to 3:30 p.m. Lunch will be served at the Faculty Club. A tentative agenda is enclosed.

The purpose of the meeting will be to collect your ideas on specific components of the comprehensive statewide plan for energy education. The attached program breakdown (FOCUS I, II, III) contains a brief description of the primary target groups and subgroups identified through your assistance. Please review these carefully and select the focus on which you would most like to concentrate at the April 6 work session. Each "focus" group will divide itself into two groups--each one dealing with a specific subgroup--so please consider the one in which you are most interested. The afternoon sessions will be conducted in this small format (4-6 people per group). The goal of each group will be to develop guidelines for their particular subgroup in terms of specific objectives, methods and activities, strategies, and evaluation. Any documentation or other background material you have which might have a particular bearing on the subgroup you select would be most helpful at the meeting.

The results of this meeting will be synthesized into the statewide plan for energy education/conservation. Shorthly thereafter, individual institutions will be asked to submit proposals for single components of the plan. Funding will be sought from other sources to support any components of the plan which fall outside the bounds of HEA Title I.

Please notify this office by March 29 if you cannot participate in this planning meeting. Additional information will be forwarded to you prior to the Task Force meeting. The State Agency will reimburse your eligible travel expenses. We hope you will be able to attend and look forward to working with you.

Cordially yours,

PAUL R. MARTIN, JR.
Director

Title I • • • Community Service and Continuing Education Programs • • •
A UNIT OF UT'S INSTITUTE FOR PUBLIC SERVICE

PROGRAM BREAKDOWN

FOCUS I: COMMUNITY LEADERS

SPECIFIC SUBGROUPS

Legislators (state and local)
Officials (state and local)
Business and Industrial Leaders
Physical Plant Operators
Civic Leaders
Citizen Action Groups
Media

METHODS/ACTIVITIES/
TOOLS FOR OUTREACH
(prioritized)

1. Workshops, Conference, Seminars, Symposia
2. Media Programs
3. Technical Assistance; recycling programs; energy conservation demonstrations; assistance with code revisions; retrofitting buildings
4. Materials (development and/or dissemination)
5. Adult and Continuing Education Courses

FOCUS II: HOMEOWNERS

SPECIFIC SUBGROUPS

Builders (homebuilders)
Architects and Engineers
Mortgage and Finance
Consumers (general public)
Housewives

METHODS/ACTIVITIES/
TOOLS FOR OUTREACH
(prioritized)

1. Information Centers (containing materials, audiovisuals, technical assistance, speakers' bureau)
2. Energy Conservation Demonstrations (such as retrofitting buildings)
3. Workshops, Conferences, Seminars, Symposia, Models (training/retraining)
4. Media Programs
   Code, regulation, law preparation/revision
   Recycling programs
   Continuing education courses

FOCUS III: EDUCATORS

SPECIFIC SUBGROUPS

Teachers (public schools)
Adult educators
Higher Education Faculty
Principals (administrators)

METHODS/ACTIVITIES/
TOOLS FOR OUTREACH
(prioritized)

1. Credit and Noncredit Courses (continuing education; training/retraining)
2. Workshops, Conferences, Seminars, Symposia
3. Energy Conservation Demonstrations (recycling; retrofitting buildings)
4. Materials (pamphlets, booklets, posters, calendars, training manuals, audiovisual aids, case studies, newsletter, annotated bibliographies)
5. Speakers' Bureau

THE UNIVERSITY OF TENNESSEE ips STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965

106 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

March 30, 1976

The attached materials have been prepared for your use prior to Tuesday's work session (April 6). Please read the summary of program parameters and keep them in mind when reviewing the procedures to be followed at the meeting. Instead of the "brainstorming" format used at the December session, this meeting will arrive at program plans based on the prepared materials each individual brings to the meeting. Therefore, your careful consideration of each of the steps described in the procedures (Attachment A) will be a crucial factor in having a successful meeting.

The purpose of this planning process is to create a comprehensive program plan for energy conservation/education which will serve Tennessee in the best possible way during 1976 and successive years. It is felt that such a program will be most successful if those institutions and agencies which will be involved either directly or indirectly are given ample opportunity to contribute to this plan. The input of the individuals identified as members of the Task Force will later be combined with supporting documentation, research, and material developed by the planning staff at the writing stage. One important aspect of the process being used is to avoid bias among Task Force members by not introducing any of this supporting material at meetings. Task Force activities are carried out independently of staff research, the findings of which are used later to verify the conclusions reached by the Task Force. For this reason, all of the materials which you receive during this process (including those attached) are derived solely from *your* input and have not been altered--only interpreted--by the planning staff.

A further means of insuring a successful program is that all the materials which you receive are representative of *group* decisions (that is, the Task Force). Since the process is one of "narrowing down," it is necessary to continue "narrowing" as specific aspects of the program(s) are further delineated. We know that some of you may disagree with some of the problems, goals, needs, and constraints described in Attachment B, but please remember that the majority determined the priorities. Therefore, these priorities must be adhered to during the procedures described in

Title I • • • Community Service and Continuing Education Programs
A UNIT OF UT'S INSTITUTE FOR PUBLIC SERVICE

Attachment A. It is suggested that you select one subgroup and one alternate subgroup (see Step 1 in Attachment A and the matrices in Attachment B) and work your way through the procedural steps before coming to the meeting. (It would be most helpful to the planning staff if you were to provide us with a copy of your individual summary.) At the April 6 meeting, the Task Force will divide into three focus groups (community leaders, consumers, or educators). Each focus group will then divide itself into "panels" of four to six members, with each panel devoted to one subgroup within the focus area. For example, if 15 Task Force members wish to work on program aspects of community leaders, the group will then subdivide into three panels - perhaps one on state and local officials, one on business and industry, and one on citizen action groups. Each panel will prepare a program plan for its selected subgroup based on materials brought to the meeting by panel members and following the procedures described in Attachment A.

If you have any questions about the process as described in this communique, please call me or Nancy Collins at the Environment Center (974-4251) or bring them up at Tuesday's meeting. We hope this additional information will set the stage for a most productive session and we look forward to seeing you on April 6.

Cordially,

Jonathan M. Wert

JMW/pls

Attachments (two)

ATTACHMENT A

PROCEDURES AND STEPS IN PROGRAM DEFINITION

As described in Attachment I, panels must stay within the limits imposed by the problems, goals, needs, constraints, and focus matrices when defining specific programs. Purposes of each panel are presented in terms of procedural steps in this Attachment.

STEP 1: Selection of Subgroup

By now, you will have selected the "focus group" in which you (and the institution or agency you represent) are most interested. At Tuesday's meeting, all participants will divide up into those three focus groups. Each focus group will then separate into panels of four to six people. This step will require a bit of negotiating since several subgroups may be seen as first priorities. With this in mind, it would be wise for you to select an alternate subgroup beforehand in case you "lose out" to the majority. As mentioned in the March 19 letter, any materials, evidence of need, or statistics pertinent to your selected subgroup(s) would be of particular importance and assistance in arriving at decisions within your focus group. The matrices in Attachment B should be of some help in making your decision.

STEP 2: Outreach Method

Using the matrix appropriate for the subgroup(s) chosen by the panel, select the best or most appropriate outreach method for serving the subgroup. In some cases, a combination of outreach methods may be most successful.

STEP 3: Activities

Specify activities for each outreach component in terms of the first year. For example, if "workshops" are determined to be the best outreach method, then how many should be held, what size groups should each one serve, where should they be located (see Step 5), what materials should be developed, and what type of leadership would be required.

STEP 4: Objectives

Determine specific objectives to be achieved through the activities and outreach methods. If at all possible, state objectives in terms of behavioral outcomes which can be measured or evaluated to determine extent of success.

STEP 5: Geographical Breakdown

Determine a geographical breakdown for the selected subgroup. For instance, should the state be divided into districts? Should programs (at least for the first year) be limited to major metropolitan areas? Should it be piloted in one area and expanded to others in a later program year

STEP 6: Responsibilities

Based on information provided in the matrix and in conjunction with geographical and/or outreach decisions, allocate responsibilities to participating institutions/agencies. Also consider the use of supporting agencies/institutions/citizen groups as resources and/or delivery systems.

STEP 7: Constraints

For your subgroup, determine how best to deal with, eliminate, or work within the known constraints. The constraints may be modified somewhat to relate to your specific subgroup.

STEP 8: Evaluation

Give the best means of evaluation, linked to the specific objectives whenever possible. It is not necessary to consider overall program evaluation--only evaluation for the program components developed by your panel.

ATTACHMENT B

PROGRAM PARAMETERS

Based on the input provided by Task Force members both at the December meeting and on responses to the process instrument distributed and tabulated in January, the following delimitations have been placed upon (1) problems; (2) goals; (3) needs; and (4) constraints. Any program refinements should be within the parameters imposed by these four areas; that is, programs and activities must be designed to meet the goals, satisfy the needs, deal with the constraints, and resolve the problems. Items under each area are listed in the order of their ranking ("1" being the highest) and are followed by the number of "votes" received as shown in brackets.

Problems

1. "Fossil fuels are being depleted faster than alternative sources are being developed." [33]

2. "Cost-effective technologies have not been developed for enough sources of energy. [32]

3. "People waste energy or use it inefficiently." [29]

4. "Environmental degradation results from energy production and use." [28]

Goals

1. "To develop a true understanding of the energy situation among Tennessee's adult population, resulting in more constructive and efficient use and conservation of energy." [21]

2. "To develop a comprehensive energy education/conservation program for Tennessee adults." [18]

3. "To educate the population of Tennessee as to the most effective and efficient means of conserving energy." [17]

4. "To make people aware that they can greatly reduce their consumption of energy and other resources without significantly altering their lifestyles." [17]

Needs

1. "To provide objective and understandable information on alternative energy sources." [20]

2. "For citizens to know the seriousness, true causes, and options of the energy crisis." [19]

3. "To give technical assistance to target groups interested in establishing energy conservation programs." [19]

4. "To develop material which strikes a compromise between technical language and simplicity, so it is understandable by the layman but still objective and correct." [18]

Note: The fourth item could easily be combined with the first, giving a total "vote" of 38.

Constraints

1. "Lack of knowledge or a clear understanding of the energy problem." [19]

2. "Lack of cohesive energy policies at the national, state, or local levels." [14]

3. "Lack of interest or concern; apathy." [12]

4. "Lack of incentive to do anything about the energy problem." [11]

5. "Lack of objective, factual information; mistrust of information sources." [10]

6. "Lack of knowledge about short-term and long-term social, economic, and environmental costs of developing alternative sources of energy." [10]

Note: Item 5 could be combined with Item 1 for a total of 29; Items 3 and 4 could be combined for a total of 23.

Target Groups/Program Possibilities

A further look at the "focus groups" mailed to you earlier is seen in the matrices on the following pages. These matrices show the emphasis and correlations between program possibilities and target groups as indicated on the process instruments. Some institutions/agencies are not represented in the matrices because returns did not permit correlations between target groups and program possibilities; for example, only a target group may have been given. Also, only those outreach methods specifically identified on process instrument returns are shown on the matrices. Your assistance in correcting or completing the information on the matrices would be greatly appreciated; please use these forms for making changes and turn them in to the planning staff on April 6.

MATRIX/FOCUS I: COMMUNITY LEADERS

COMMUNITY LEADERS / METHOD OF OUTREACH	*SUBGROUPS*						
	Legislators	Officials	Business and Industry	Physical Plant Operators	Civic Leaders	Citizen Action Groups	The Media
Face-to-Face Workshops Seminars Symposia		TTU* UT-M TEO†	TTU* Wesleyan† UT-N* TEO† Ag. Ext.†	TTU* TEO†		TEC† Austin-Peay TEO†	UT-M*
Media-Based Programs	UT-K	UT-M	WETE*†			WETE*†	UT-M
"Hands-On" Tech. Asst. Demonstrations Energy audits Speakers Bur.		Milligan News-Sent† TEO†	UT-K TTU Vol State Milligan TEO†	TTU Austin-P* TEO†		TEO†	
Materials Newsletter Packets	UT-K	UT-M				Austin-Peay TSU	UT-M
Continuing Education Courses	Urban Obs†	TTU Roane State UT-M TEO†	TEO† SDE†			TEO†	UT-M

† = Cooperating agency only   * = Specific Program area

MATRIX/FOCUS II: CONSUMERS

CONSUMERS METHOD OF OUTREACH	*SUBGROUPS*				
	Homeowners	General Public	Housewives	Builders	Architects and Engineers
Information Centers Speakers Bureau Hot Line Materials	Jackson St. WETE† C-N* Motlow Ag. Ext.† News-Sent.† Dyersburg†	TEC* TEC*†		TTU Jackson St.	TTU
"Hands-On" Demonstrations Retrofitting	Jackson St. TSU Wesleyan News-Sent†			Jackson St. Kingsport†	
"Face-to-Face" Workshops Seminars Symposia	TTU*	TTU* Motlow		TTU* UT-N*	UT-N*
Media-Based Programs	Urban Obs.† WETE† UT-N Dyersburg †		Urban Obs.†		
Active Participation Recycling	Volunteer			Volunteer	
Continuing Education Courses					

† = Cooperating agency only   * = Specific Program area

MATRIX/FOCUS III: EDUCATORS

EDUCATORS METHOD OF OUTREACH	SUBGROUPS			
	Public School Teachers	Public School Administrators	Adult Educators	Higher Education Faculty
Courses--Credit and Noncredit	UT-N* Milligan Motlow TEO†	UT-M TEO† SDE†	Roane St* Motlow*	
"Face-to-Face" Workshops Seminars Symposia	SDE† TSU UT-N* Milligan TEO† Dyersburg†	UT-M TEO†		TSU
"Hands-On" Demonstrations Technical assistance	TEO†	TEO†		
Materials (includes newsletters)	Roane St Milligan Kingsport†	UT-M		Roane St
Speakers Bureau — *Info. Center*	C-N			

† = Cooperating agency only

* = Specific Program area

AGENDA
Tennessee Energy Education Program Task Force Meeting
The University of Tennessee Faculty Club, Knoxville
April 6, 1976

8:30-9:00	Registration; Coffee and Doughnuts
9:00-9:10	Welcome; Introductions *Paul Martin, Director, State Agency for Title I*
9:10-9:25	Review of the Energy Picture Since December, 1975 Efforts of the U.T. Environment Center in this Area *John H. Gibbons, Director, U.T. Environment Center*
9:25-9:40	Tennessee Energy Office: Programs and Plans for Energy Education/Conservation, including "Energy Conservation Month" *Claudia Viken and Cynthia Oliphant, TEO*
9:40-10:00	State Department of Education: Programs and Plans for Energy Conservation/Education, including *Joe Minor, Chief of Curriculum Services, SDE*
10:00-10:10	Oak Ridge National Laboratory: Interests and Activities in Energy Conservation *Roger Carlsmith, Head of Analyses and Environental Department, Energy Division, ORNL*
10:10-10:20	Oak Ridge Associated Universities: Interests and Activities in Energy Conservation *Philip Johnson, Executive Director, ORAU*
10:20-10:30	Tennessee Valley Authority: Interests and Activities in Energy Education/Conservation *James Ward, Chief of Electrical Demonstration Branch, TVA*
10:30-10:50	Coffee Break
10:50-11:05	Charge to Task Force; Review of master plan for energy education/conservation in Tennessee *Jon Wert, Consultant, U.T. Environment Center*
11:05-11:20	Review of planning process followed in developing the plan; Discussion of procedures and activities during the work sessions *Nancy Collins, Planning Staff, U.T. Environment Center*
11:20-11:30	Formation of Focus Groups and division into "Panels"
11:30-12:15	Panel Discussions and Preparation of specific objectives, methods, activities, strategies, and evaluation components for selected subgroups
12:15-1:15	Lunch

1:15-2:45	Panels continue development of programs
2:45-3:15	Panels agree on summarized results of work sessions; prepare summaries for planning staff
3:15-3:30	Closing remarks by Paul Martin (explanation of funding procedures, proposal submission, and travel expenses)
3:30	Adjourn

APPENDIX C

PROCESS INSTRUMENT

ENERGY EDUCATION/CONSERVATION QUESTIONNAIRE*

Prepared for Title I by
The University of Tennessee Environment Center
330 South Stadium
Knoxville, Tennessee 37916
615/974-4251

December 1975

*Based on information developed by participants at the ad hoc workshop on energy education needs in Tennessee held at UT-K on December 8, 1975.

PART I: ENERGY PROBLEMS

DIRECTIONS: Read the energy problems stated below, adding any which you feel are especially important and which have not been included. Then select the five most important problems and rank them from high ("1") to low ("5").

____ Fossil fuels are being depleted faster than alternative sources are being developed.

____ Environmental degradation results from energy production and use.

____ Cost-effective technologies have not been developed for enough sources of energy.

____ We are not responding as fast as we should to the higher costs of energy.

____ The possibility of future embargoes is real and they would be far worse than the last one.

____ People waste energy or use it inefficiently.

____ ____
____

____ ____
____

____ ____
____

PART II: GOALS

DIRECTIONS: Read the proposed alternative statewide energy education/conservation program goals. Add any goals which you feel are important. Then select the one statement which you feel would be most appropriate for the overall program; place a "1" beside it. Select two more statements and place a "2" by one and a "3" by the other, indicating second and third goal alternatives.

____ To educate the population of Tennessee as to the most effective and efficient means of conserving energy.

____ To impart as much objective energy information to as many people in the State of Tennessee in as simple a form as possible.

____ To develop a comprehensive energy education/conservation program for Tennessee adults.

____ To develop a true understanding of the energy situation among Tennessee's adult population, resulting in more constructive and efficient use and conservation of energy.

____ To make people aware that they can greatly reduce their consumption of energy and other resources without significantly altering their lifestyles.

____ To develop and implement resource conservation programs for adults in Tennessee with emphasis on energy.

____ To educate Tennessee adults about the economic and social aspects of living with less energy.

____ ____
____

____ ____
____

____ ____
____

PART III: NEEDS

DIRECTIONS: Read the energy program needs stated below. Add any other needs which you feel are important. Select the ten needs which you feel should be given high priority and rank them from "1" (highest) to "10" (lowest).

____ To convince people that supplies of fossil fuels are limited.

____ To provide adequate material on energy issues, trade-offs, and conservation opportunities, with procedures for updating the material.

____ To develop material which strikes a compromise between technical language and simplicity, so it is understandable by the layman but still objective and correct.

____ To obtain support for energy conservation from elected officials and government leaders.

____ For citizens to know the seriousness, true causes, and options of the energy crisis.

____ To provide objective and understandable information on alternative energy sources.

____ To obtain money to implement programs and to continue those that are cost-effective.

____ To provide energy conservation incentives or reward structures for individuals.

____ To maintain repositories or information centers where citizens can obtain useable information and answers to energy questions.

____ To give technical assistance to target groups interested in establishing energy conservation programs.

____ To demonstrate energy efficient materials and systems.

____ To develop new (or update old) codes, regulations, or laws which encourage energy conservation consistent with minimum total cost.

____ To convince people that there actually is an energy problem.

____ To develop a comprehensive plan and a centrally coordinated energy conservation program for Tennessee.

____ To develop methodologies to determine the short- and long-range costs to society for developing all energy resources.

PART III (Continued)

____ To obtain more energy conservation leadership and support from government at federal, state, and local levels.

____ To provide programs for retrofitting buildings and homes.

____ To convince banks and other organizations which lend money for development to incorporate considerations of energy conservation and pollution in their loan policies.

____ To increase recycling program efforts.

____ To develop curriculum materials.

____ To develop training materials.

____ To create better interagency communication.

____ To offer short courses and special programs through adult and continuing education.

____ To write a state school system energy education/conservation policy on curriculum and facilities.

____ To provide low-cost financing for purchase of energy-efficient materials or systems.

____ To provide more citizen participation in determining government spending priorities.

____ To establish more formal state programs of energy management in state agencies, including transportation and schools.

____ To offer training and retraining programs for school teachers and university faculty about energy and the need for conservation.

____ To utilize existing delivery systems whenever possible in getting energy information to target groups.

____ To develop an energy conservation consumers' guide specifically designed for Tennesseeans.

____ To distribute information on the true costs and savings of conserving energy and other resources.

____ To provide material or information about minor changes of lifestyles or standards of living that can make large changes in demand for energy and other resources.

____ To develop special materials and programs to dispel energy myths.

PART III (Continued)

____ To get energy conservation tips to the consumer at home.

____ To establish lobby groups to promote or support energy efficient policies and programs.

____ To inform citizens of the advantages and disadvantages of different types of appliances.

____ To establish a speakers' bureau complete with kits and filmstrips.

____ To design model programs and materials which are action-oriented and result in constructive change with improved resource use.

____ To encourage comprehensive regional planning.

____ To develop models for citizen participation in the decision-making process.

____ To rearrange priorities and implement programs that will result in an "energy conservation ethic."

____ To broaden discussion of energy goals for Tennessee (e.g., do we want to become an "energy oasis?").

____ ____
____

____ ____
____

____ ____
____

____ ____
____

PART IV: PROGRAM POSSIBILITIES

DIRECTIONS: Carefully review the listing of energy program possibilities given below. Add any energy programs which you feel are important or that you have the capability to implement quickly and effectively at your institution. Select ten and rank them from "1" (highest) to "10" (lowest). It might be helpful to review Part V ("Target Groups") before completing this section.

____ Code, regulation, and law preparation (e.g., building design, plant maintenance, curriculum).

____ Information centers, "hot lines," or toll-free numbers for energy information.

____ Training/retraining.

____ Recycling of solid waste for resource and energy recovery.

____ Reduction of solid waste and energy demand through reduction or elimination of one-way beverage containers.

____ Increased use of car pooling and van/bus transportation.

____ Media (TV, radio newspapers) programs on energy issues for Tennessee.

____ Voter/consumer information specifically designed for Tennessee residents.

____ Workshops, conferences, seminars, symposia, models.

____ Energy conservation demonstrations.

____ Pamphlets, booklets, posters, calendars.

____ Training manuals.

____ Audiovisual aids; games or simulation activities; kits.

____ Adult continuing education; undergraduate and graduate courses.

____ Contests

____ Speakers' bureau.

____ Retrofitting buildings and houses.

____ Case studies.

PART IV (Continued)

____ Awards.

____ Position papers.

____ Newsletter.

____ Annotated bibliographies.

____ Technical assistance.

____ Lobbying.

____ Computerized energy audits.

____ ____
____

____ ____
____

____ ____
____

PART V: TARGET GROUPS

DIRECTIONS: Carefully scan the listing of target groups given below. Add any target groups which you feel are important. Select the ten target groups which you feel should receive primary consideration and rank them according to priority from "1" (highest) to "10 (lowest).

The program possibilities rank-ordered in Part IV should correspond with the target groups rank-ordered in this section; e.g., if your number one program possibility was "retrofitting buildings and houses," your number one target group should be "homebuilders," or "architects and engineers," or "construction workers." If you find it impossible to correlate all ten programs to ten target groups, please indicate which do correspond (e.g., first priority only; first three priorities; and so on).

____ Homeowners

____ Homebuilders (contractors, subcontractors)

____ Housewives

____ Senior citizens

____ Women's groups

____ Youth groups (FHA, FFA, Scouts)

____ Youth group leaders

____ Educators (school teachers and university faculty)

____ School administrators (superintendents, principals, supervisors)

____ Business and industrial leaders (plant managers, store owners)

____ Government officials (local, state)

____ Civil service employees

____ Bankers and banking associations

____ Trade associations

____ Architects and engineers

____ Construction workers

____ Physical plant maintenance operators

PART V (Continued)

____ Professional societies

____ Community civic organizations

____ Citizen action groups

____ Farm bureau agents

____ Labor organizations

____ Church groups

____ ____

____ ____

____ ____

PART VI: CONSTRAINTS

DIRECTIONS: Carefully read the listing of constraints given below. Add any constraints you feel are important in view of the priorities you have already selected for program possibilities and target groups. Considering only the first program possibility selected in Part IV, select five major constraints to implementing this program and rank them from "1" (greatest) to "5" (least).

____ Lack of environmentally acceptable energy conversion technologies.

____ Lack of incentive to do anything about the energy problem.

____ Lack of knowledge or a clear understanding of the energy problem.

____ Lack of interest or concern; apathy.

____ Lack of money to develop educational programs.

____ Lack of money to purchase energy efficient materials or systems.

____ Lack of cohesive energy policies at the national, state, and local levels.

____ Lack of time to do anything about energy conservation.

____ Lack of confidence and trust in government and power distributor leaders.

____ Lack of leadership at all levels.

____ Lack of priority assigned to energy education/conservation.

____ Lack of adequately informed teachers, architects, engineers, lawyers, etc., about the energy problem.

____ Lack of objective, factual information; mistrust of information sources.

____ Lack of a central repository or information center which provides objective information, technical assistance, and useable answers to questions.

____ Lack of sufficient rewards for those who conserve energy.

____ Lack of knowledge about short-term and long-term social, economic, and environmental costs of developing alternative sources of energy.

____ Lack of a legal authority to regulate power rates or structures.

____ Lack of knowledge about what to do or how to do it in order to conserve energy.

PART VI (Continued)

____ Failure to believe that an energy problem actually exists.

____ Belief in many myths or half-truths (e.g., effect of thermostat set-back).

____ Unwillingness to sacrifice present benefits for future rewards.

____ Slowness of people to accept change.

____ Voluminous amounts of controversial or biased material circulated by special interest groups.

____ Poor political response and support for energy conservation.

____ Belief that energy conservation will be detrimental to economic growth.

____ Concern over possible sacrifices and loss of freedom resulting from less energy growth.

____ Advertisements and activities which encourage poor resource utilization, create energy demand, and a more materialistic lifestyle.

____ Belief that cost-effective technologies will become available in time and that we can therefore continue rapid growth without controls (i.e., technology bail-out).

____ Problem in getting information or answers to energy questions when needed.

____ Difficulty in anticipating what future energy prices will attain and therefore what conservation options are going to be cost-effective.

____ Feeling that energy conservation is an inconvenience.

____ Too many government-funded "cosmetic" energy programs.

____ ____
____

____ ____
____

____ ____
____

PART VII: GENERAL INFORMATION

1. Name ______________________________

   Institution ______________________________

   Address ______________________________

   Telephone ______________________________

2. Would you be interested in developing a program prospectus within a statewide program direction for submission to Title I (HEA) for funding consideration? ____ *yes*

   ____ *no*

3. If the answer to question 2 is "yes," what energy program possibility (See Part IV) interests you (or the institution you represent) most? Please provide a tentative program title and brief description (use extra pages if necessary).

4. If the answer to Question 2 is "no," what alternatives would you recommend?

5. What is the priority adult target group toward which the program would be directed (See Part V for a listing of possible target groups and expand the appropriate description to fit your program)?

PART VII (Continued)

6. Which of the following resources for energy education/conservation does your institution have?

____ *expertise*
____ *money*
____ *materials*
____ *facilities*

Briefly explain the items you checked.

____

____

____

____

7. Does your institution have an ongoing energy education/conservation program? ____ *yes*
____ *no*

If "yes," please describe briefly.

____

____

____

____

APPENDIX D

ANALYSIS OF PROCESS INSTRUMENT

PART I: ENERGY PROBLEMS

	Rank					
Statement of Problem	1	2	3	4	5	Total
1. Fossil fuels are being depleted faster than alternative sources are being developed.	11	5	10	3	4	33
2. Cost-effective technologies have not been developed for enough sources of energy.	7	9	7	4	5	32
3. People waste energy or use it inefficiently.	7	12	4	5	1	29
4. Environmental degradation results from energy production and use.	0	3	2	10	13	28
5. We are not responding as fast as we should to the higher costs of energy.	4	3	4	6	4	21
6. The possibility of future embargoes is real and they would be far worse than the last one.	3	1	6	4	5	19

PART II: GOALS

Statement of Goals	Rank 1	2	3	Total
1. To develop a true understanding of the energy situation among Tennessee's adult population, resulting in more constructive and efficient use and conservation of energy.	11	3	7	21
2. To develop a comprehensive energy education/ conservation program for Tennessee adults.	6	8	4	18
3. To educate the population of Tennessee as to the most effective and efficient means of conserving energy.	3	3	11	17
4. To make people aware that they can greatly reduce their consumption of energy and other resources without significantly altering their lifestyles.	2	11	4	17
5. To impart as much objective energy information to as many people in the State of Tennessee in as simple a form as possible.	5	5	1	11
6. To develop and implement resource conservation programs for adults in Tennessee with emphasis on energy.	3	2	4	9
7. To educate Tennessee adults about the economic and social aspects of living with less energy.	2	3	4	9

PART III: NEEDS

	Rank										
Statements of Needs	1	2	3	4	5	6	7	8	9	10	Total
1. To provide objective and understandable information on alternative energy sources.	4	3	1	2	5	0	2	2	1	0	20
2. For citizens to know the seriousness, true causes, and options of the energy crisis.	2	4	2	5	2	2	1	0	1	0	19
3. To give technical assistance to target groups interested in establishing energy conservation programs.	0	2	3	4	1	4	0	2	3	0	19
4. To develop material which strikes a compromise between technical language and simplicity, so it is understandable by the layman but still objective and correct.	2	4	1	3	1	1	0	4	1	1	18
5. To convince people there actually *is* an energy crisis.	8	1	2	2	2	0	1	0	0	0	16
6. To obtain support for energy conservation from elected officials and government leaders.	0	5	4	1	0	1	1	2	0	2	16
7. To provide adequate material on energy issues, trade-offs, and conservation opportunities, with procedures for updating the material.	2	2	1	3	3	0	1	1	1	1	15

PART III: NEEDS (Continued)

Statements of Needs	Rank 1	2	3	4	5	6	7	8	9	10	Total
8. To maintain repositories or information centers where citizens can obtain useable information and answers to energy questions.	1	0	0	2	1	2	1	0	4	3	14
9. To offer training and retraining programs for school teachers and university faculty about energy and the need for conservation.	0	1	2	0	0	2	2	3	0	2	12
10. To provide energy conservation incentives or reward structures for individuals.	0	0	2	4	1	0	1	0	1	3	12
11. To develop methodologies to determine the short- and long-range costs to society for developing all energy resources.	1	1	4	0	0	1	3	1	0	0	11
12. To develop new (or update old) codes, regulations, or laws which encourage energy conservation consistent with minimum total cost.	0	0	3	0	2	3	1	1	0	1	11
13. To develop a comprehensive plan and a centrally coordinated energy conservation program for Tennessee.	3	3	1	0	1	1	0	0	1	0	10
14. To demonstrate energy efficient materials and systems.	1	1	0	1	0	0	3	1	3	0	10
15. To utilize existing delivery systems whenever possible in getting energy information to target groups.	0	1	0	2	2	3	0	1	1	0	10

PART III: NEEDS (Continued)

Statements of Needs	Rank 1	2	3	4	5	6	7	8	9	10	Total
16. To obtain more energy conservation leadership and support from government at federal, state, and local levels.	0	2	1	4	0	0	1	0	1	0	9
17. To provide material or information about minor changes of lifestyles or standards of living that can make large changes in demand for energy and other resources.	0	0	1	1	1	0	2	0	0	4	9
18. To design model programs and materials which are action-oriented and result in constructive change with improved resource use.	1	1	0	0	0	1	1	1	0	3	8
19. To get energy conservation tips to the consumer at home.	1	0	1	1	0	0	0	3	2	0	8
20. To obtain money to implement programs and to continue those that are cost-effective.	0	2	1	0	1	1	0	1	2	0	8
21. To create better inter-agency communication.	0	0	3	0	0	0	1	0	2	2	8
22. To offer short courses and special programs through adult and continuing education.	0	0	0	1	3	1	1	1	0	1	8
23. To convince people that supplies of fossil fuels are limited.	3	2	0	1	0	0	1	0	0	0	7
24. To encourage comprehensive regional planning.	0	1	0	1	1	0	1	2	0	1	7

PART III: NEEDS (Continued)

	Rank										
Statements of Needs	1	2	3	4	5	6	7	8	9	10	Total
25. To develop an energy conservation consumers' guide specifically designed for Tennesseans.	0	0	0	1	0	0	2	3	0	1	7
26. To provide programs for retrofitting buildings and homes.	0	1	0	0	1	2	0	1	0	1	6
27. To establish more formal state programs of energy management in state agencies, including transportation and schools.	0	0	0	0	1	1	2	0	2	0	6
28. To broaden discussion of energy goals for Tennessee (e.g., do we *want* to become an "energy oasis"?).	1	0	0	0	0	1	1	0	1	1	5
29. To distribute information on the true costs and savings of conserving energy and other resources.	0	0	3	0	0	0	0	1	2	0	5
30. To provide low-cost financing for purchase of energy-efficient materials or systems.	0	0	0	2	0	1	1	1	0	0	5
31. To convince banks and other organizations which lend money for development to incorporate considerations of energy conservation and pollution in their loan-policies.	0	0	0	0	1	4	0	0	0	0	5
32. To develop curriculum materials.	0	0	0	0	0	3	1	0	1	0	5
33. To develop training materials.	0	0	0	0	0	2	3	0	0	0	5

PART III: NEEDS (Continued)

	Rank										
Statements of Needs	1	2	3	4	5	6	7	8	9	10	Total
34. To rearrange priorities and implement programs that will result in an "energy conservation ethic."	3	0	0	0	0	0	0	0	1	0	4
35. To increase recycling program efforts.	0	0	1	0	1	1	0	1	0	0	4
36. To establish a speakers' bureau complete with kits and filmstrips.	0	0	0	0	2	0	0	0	1	0	3
37. To inform citizens of the advantages and disadvantages of different types of appliances.	0	0	0	0	0	1	0	0	1	0	2
38. To write a state school system energy education/conservation policy on curriculum and facilities.	0	0	0	0	1	0	0	0	0	0	1
39. To establish lobby groups to promote or support energy efficient policies and programs.	0	0	0	0	1	0	0	0	0	0	1
40. To develop special materials and programs to dispel energy myths.	0	0	0	0	0	0	0	0	0	1	1

PART IV: PROGRAM POSSIBILITIES

Programs	1	2	3	4	5	6	7	8	9	10	Total
1. Workshops, conferences, seminars, symposia, models.	11	4	3	1	2	0	1	3	3	0	28
2. Media (TV, radio, newspapers) programs on energy issues for Tennessee.	7	3	2	2	3	2	1	2	0	1	23
3. Energy conservation demonstrations.	1	2	2	4	5	2	1	3	3	0	23
4. Pamphlets, booklets, posters, calendars.	0	3	2	2	1	3	3	3	2	0	19
5. Code, regulation, and law preparations (e.g., building design, plant maintenance, curriculum).	4	4	1	3	1	0	4	0	3	0	18
6. Adult continuing education.	2	5	3	1	2	0	1	1	0	2	17
7. Voter/consumer information specifically designed for Tennessee residents.	2	2	0	2	3	2	0	2	3	1	17
8. Retrofitting buildings and houses.	1	3	5	3	1	1	0	1	0	0	15
9. Audiovisual aids; games or simulation activities; kits.	0	2	0	2	1	2	3	1	1	3	15
10. Technical assistance.	0	0	3	3	3	1	2	1	1	1	15
11. Recycling of solid waste for resource and energy recovery.	3	1	3	1	0	2	1	2	0	1	14
12. Training/retraining.	2	3	2	0	1	2	2	1	1	0	14
13. Information centers, "hot lines," or toll-free numbers for energy information.	2	2	2	1	3	2	1	0	0	1	14

PART IV: PROGRAM POSSIBILITIES (Continued)

Programs	Rank										Total
	1	2	3	4	5	6	7	8	9	10	
14. Training manuals.	0	1	1	1	1	2	2	2	0	2	12
15. Speakers' bureau.	0	0	2	1	1	2	0	1	1	2	10
16. Increased use of carpools and van/bus transportation.	0	0	1	2	1	2	0	1	1	2	10
17. Reduction of solid waste and energy demand through reduction or elimination of one-way beverage containers.	0	1	0	0	3	0	1	1	1	2	9
18. Newsletter.	0	1	0	1	0	3	0	0	3	0	8
19. Computerized energy audits.	0	0	0	2	1	1	0	1	0	2	7
20. Lobbying.	0	2	1	0	0	1	2	0	0	0	6
21. Case studies.	0	0	0	2	0	0	1	1	1	1	6
22. Awards.	0	0	0	0	0	2	1	0	1	1	5
23. Position papers.	0	0	0	0	0	0	1	1	0	1	3
24. Annotated bibliographies.	0	0	0	0	0	0	0	0	2	1	3
25. Contests.	0	0	0	0	0	1	0	0	0	1	2

PART V: TARGET GROUPS

Target Groups	Rank 1	2	3	4	5	6	7	8	9	10	Total
1. Government officials local, state)	7	4	3	2	0	4	4	1	1	0	26
2. Homeowners	7	3	3	0	8	3	0	0	0	1	25
3. Educators (school teachers and university faculty)	3	7	7	3	0	0	1	3	1	0	25
4. Business and industrial leaders	5	3	4	6	1	3	0	2	0	0	24
5. Architects and engineers	2	1	5	1	2	1	6	2	0	1	21
6. Community civic organizations	1	3	0	3	4	2	1	0	4	3	21
7. Homebuilders (contractors, subcontractors)	1	3	3	1	4	2	1	2	2	0	19
8. Citizen action groups	1	2	1	3	3	3	1	1	1	2	16
9. School administrators	0	6	3	0	1	0	1	1	1	3	16
10. Housewives	3	1	0	4	0	3	1	1	0	2	15
11. Professional societies	0	0	1	1	1	2	0	3	4	1	13
12. Labor organizations	0	0	1	1	0	1	1	0	3	3	10
13. Physical plant maintenance operators	0	0	0	2	1	1	2	1	2	1	10
14. Women's groups	1	1	0	1	0	1	0	3	2	0	9
15. Bankers and banking associations	1	1	1	1	1	0	2	0	0	0	7
16. Trade associations	1	0	1	0	1	0	1	1	1	1	7
17. Youth group leaders	0	0	1	1	1	0	0	1	1	2	7

PART V: TARGET GROUPS (Continued)

Target Groups	Rank 1	2	3	4	5	6	7	8	9	10	Total
18. Senior citizens	0	0	0	0	1	1	0	1	1	2	6
19. Construction workers	0	0	0	0	0	1	0	1	1	2	5
20. Youth groups	0	0	1	0	2	0	0	0	0	1	4
21. Church groups	0	0	0	0	1	0	1	0	0	1	3
22. Civil Service employees	1	0	0	0	1	0	0	0	0	0	2
23. Farm Bureau agents	0	0	0	0	1	0	0	0	1	0	2

PART VI: CONSTRAINTS

Constraints	Rank 1	2	3	4	5	Total
1. Lack of knowledge or a clear understanding of the energy problem.	7	10	2	0	0	19
2. Lack of cohesive energy policies at the national, state, and local levels.	5	3	3	3	0	14
3. Lack of interest or concern; apathy.	4	2	3	2	1	12
4. Lack of incentive to do anything about the energy problem.	6	2	2	0	1	11
5. Lack of objective, factual information; mistrust of information sources.	1	0	3	4	2	10
6. Lack of knowledge about short-term and long-term social, economic, and environmental costs of developing alternative sources of energy.	0	5	2	0	3	10
7. Lack of money to develop educational programs.	3	0	2	2	2	9
8. Lack of leadership at all levels.	0	2	2	1	3	8
9. Lack of confidence and trust in government and power distributor leaders.	0	1	3	3	1	8
10. Lack of priority assigned to energy conservation/education.	1	1	2	2	1	7
11. Unwillingness to sacrifice present benefits for future rewards.	0	2	0	0	5	7
12. Failure to believe that an energy problem actually exists.	2	0	2	1	1	6
13. Lack of knowledge about what to do or how to do it in order to conserve energy.	2	0	1	2	1	6
14. Lack of adequately informed teachers, architects, engineers, lawyers, etc., about the energy problem.	1	1	0	1	2	5

PART VI: CONSTRAINTS (Continued)

Constraints	Rank 1	2	3	4	5	Total
15. Belief that cost-effective technologies will become available in time and that we can therefore continue rapid growth without controls (i.e., technology bail-out).	0	0	2	2	1	5
16. Lack of sufficient rewards for those who conserve energy.	0	2	0	0	1	3
17. Belief that energy conservation will be detrimental to economic growth.	0	0	1	2	0	3
18. Lack of a central repository or information center which provides objective information, technical assistance, and useable answers to questions.	0	0	1	1	1	3
19. Lack of environmentally acceptable energy conservation technologies.	0	0	1	0	2	3
20. Difficulty in anticipating what future energy prices will attain and therefore what conservation options are going to be cost-effective.	0	0	0	1	2	3
21. Poor political response and support for energy conservation.	1	0	0	1	0	2
22. Problem in getting information or an answers to energy questions when needed.	0	1	0	1	0	2
23. Advertisements and activities which encourage poor resource utilization, create energy demand, and a more materialistic lifestyle.	0	0	1	0	1	2
24. Feeling that energy conservation is an inconvenience.	0	0	1	0	1	2
25. Voluminous amounts of controversial or biased material circulated by special interest groups.	0	0	0	2	0	2
26. Slowness of people to accept change.	0	0	0	1	1	2

PART VI: CONSTRAINTS (Continued)

Constraints	Rank 1	2	3	4	5	Total
27. Lack of money to purchase energy efficient materials or systems.	0	1	0	0	0	1
28. Lack of a legal authority to regulate power rates or structures.	0	0	1	0	0	1
29. Belief in many myths or half-truths (e.g., effect of thermostat setback).	0	0	0	1	0	1
30. Lack of time to do anything about energy conservation.	0	0	0	0	0	0
31. Concern over possible sacrifices and loss of freedom resulting from less energy growth.	0	0	0	0	0	0
32. Too many government-funded "cosmetic" energy programs.	0	0	0	0	0	0

APPENDIX E

EVALUATION MATERIALS

WORKSHOP EVALUATION FORM

Directions: Please use this form to share your ideas, feelings, and evaluations with us.

	Most Definitely	Definitely	Satisfactory	Inadequately	Not at all
1. Were the goals or objectives of the workshop made clear to you?	1	2	3	4	5
2. Did you understand what was expected of you at the workshop?	1	2	3	4	5
3. Was advance information adequate?	1	2	3	4	5
4. Were meeting facilities adequate?	1	2	3	4	5
5. Was registration handled effectively?	1	2	3	4	5
6. Were helpful energy education/conservation materials available?	1	2	3	4	5
7. Was the workshop:					
a. Relatively free from distraction?	1	2	3	4	5
b. Held at a convenient location?	1	2	3	4	5
c. Made meaningful by clear presentations?	1	2	3	4	5
d. Appropriate in length?	1	2	3	4	5
8. Were the leaders effective in their use of educational techiques and aids?	1	2	3	4	5
9. Did the leaders:					
a. Provide adequate assistance during the workshop?	1	2	3	4	5
b. Seem interested in participants' comments?	1	2	3	4	5
10. Did you acquire useful information, new viewpoints, or changed attitudes?	1	2	3	4	5
11. Was progress made toward workshop goals?	1	2	3	4	5
12. Have problems or needs emerged that point toward further study or action?	1	2	3	4	5
13. Were stated workshop objectives achieved?	1	2	3	4	5
14. Do you feel you benefited personally from participants in this workshop?	1	2	3	4	5

Please put comments and recommendations on the back.

Environment Center
The University of Tennessee
South Stadium Hall
Knoxville, Tennessee 37916

CUMULATIVE EVALUATION OF ENERGY EDUCATION TASK FORCE MEETING ON DECEMBER 8, 1975

Key to responses: 1=Most definitely 2=Definitely 3=Satisfactory 4=Inadequately 5=Not at all

QUESTION	TOTAL RESPONSE	INDIVIDUAL RESPONSES						PERCENTAGES					
		1	2	3	4	5	N.R.	1	2	3	4	5	N.R
1. Were the goals or objectives of the workshop made clear to you?	17	2	7	4	4	0	0	11.76	41.18	23.53	23.53	0	0
2. Did you understand what was expected of you at the workshop?	17	3	5	7	2	0	0	17.65	29.41	41.18	11.76	0	0
3. Was advance information adequate?	17	2	4	9	1	1	0	11.76	23.53	52.94	5.88	5.88	0
4. Were meeting facilities adequate?	17	1	5	7	3	1	0	5.88	29.41	41.18	17.65	5.88	0
5. Was registration handled effectively?	17	7	3	5	1	0	1	41.18	17.65	29.41	5.88	0	5.88
6. Were helpful energy education/ conservation materials available?	17	5	4	3	4	1	0	29.41	23.53	17.65	23.53	5.88	0
7. Was the workshop:													
a. Relatively free from distraction?	17	1	8	4	4	0	0	5.88	47.06	23.53	23.53	0	0
b. Held at a convenient location?	17	2	5	4	3	3	0	11.76	29.41	23.53	17.76	17.65	0
c. Made meaningful by clear presentations?	17	2	6	4	5	0	0	11.76	35.29	23.53	29.41	0	0
d. Appropriate in length?	17	4	5	3	5	0	0	23.53	29.41	17.65	29.41	0	0
8. Were the leaders effective in their use of educational techniques and aids?	17	2	5	8	1	0	1	11.76	29.41	47.06	5.88	0	5.88
9. Did the leaders:													
a. Provide adequate assistance during the workshop?	17	3	7	2	5	0	0	17.65	41.18	11.76	29.41	0	0
b. Seem interested in participants' comments?	17	7	3	2	4	1	0	41.18	17.65	11.76	23.53	5.88	0
10. Did you acquire useful information, new view points, or changed attitudes?	17	1	7	6	3	0	0	5.88	41.18	35.29	17.65	0	0
11. Was progress made toward workshop goals?	17	4	4	5	4	0	0	23.53	23.53	29.41	23.53	0	0
12. Have problems or needs emerged that point toward further study or action?	17	3	7	2	3	0	2	17.65	41.18	11.76	17.65	0	11.76
13. Were stated workshop objectives achieved?	17	1	4	8	3	0	1	5.88	23.53	47.06	17.65	0	5.88
14. Do you feel you benefited personally form participation in this workshop?	17	4	5	4	2	2	0	23.53	29.41	23.53	11.76	11.76	0

Environment Center, The University of Tennessee, 325 South Stadium Hall, Knoxville, Tn 37916

APPENDIX F

TITLE I (HEA) PROPOSAL FORMS

GUIDELINES FOR DEVELOPING PROPOSALS FOR COMMUNITY SERVICE AND CONTINUING EDUCATION PROGRAMS UNDER TITLE I OF THE HIGHER EDUCATION ACT OF 1965

BASIC INGREDIENTS FOR SUCCESSFUL PROPOSALS:

Through the experience of six years of programming, the State Agency has found that there are three basic ingredients or conditions which must be present from the very beginning of each Title I proposal to ensure the success of even the very best program idea. The first of these is strong institutional support for the whole idea of public service programs. This includes the active leadership of the top administration of an institution in the provision of ways and means to help solve community problems--encouraging faculty participation, providing adequate time for faculty involvement, and providing adequate financial assistance. The second of these is a project director who is involved in community problems and has "something to say" about their solution. The project director should actually be the one with the initial program idea or at least be involved in program development in the very early stages. The third ingredient is participant involvement in program development at a very early stage. This not only ensures future support for a program, but it provides the institution with valuable insights on the community's viewpoint of the problem area.

Once these three basic ingredients are present, program development should be concerned with the identification of a specific problem in a succinct manner, the development of realistic objectives designed to help solve the problem, and the design of evaluation procedures which will measure the accomplishments of the program with respect to its objectives. A comprehensive evaluation of all Title I programs is "a must" to ensure that the limited funds available are used for optimum results in the solution of community problems.

PROGRAM DEVELOPMENT:

Proposals should be developed in line with the problem areas and priorities established in the Fiscal Year 1976 Annual Program Amendment. Title I programs must meet the priority community needs through adult education. The State Agency would most encourage those programs which impact upon the community in the form of problem solving; and upon the educational institution in the form of assisting it to improve its own long-range community service program. Listed below are specific items which will be evaluated or reviewed in the selection of those proposals to be funded under Title I. The proposal form used for submitting programs should be completed with these criteria in mind.

The Problem - The problem must be clearly identified and stated. It must meet Title I priorities for the fiscal year. There must be a need for the project in terms of the seriousness of the community problem. This need must be justified with supportive and well documented data.

Is the stated problem one which should be attacked by a college or university under a Title I proposal? What is the appropriateness of the proposal to the problem? To the resources of the institution of higher education? The institution's special capability to deal with the problem must be outlined and supported. Can the capability of the institution to provide community service and continuing education programs be strengthened by the proposed project? *(Please refer to section on "Assessment of Institutional Capability.")*

The Objectives - The objectives of the program must be clearly defined. They must be realistic and worthwhile. State specific outcomes or objectives the project seeks to achieve in the community and in institutions of higher education with reference to changes in individuals, groups, institutions, and/or environments. The plan for reaching these objectives must be clear and concise.

The Program - Is the plan of execution educationally sound? Are well defined procedures, methods, and materials to be employed? Is the proposal innovative and exemplary? Is it an action program? Will the proposal duplicate an ongoing program in its particular area? Will the proposal make a unique contribution to the solution of the community problem? Could the proposal be funded more appropriately from some other source? Will the proposal complement and/or supplement community development efforts of other government agencies? What is the relationship of the proposal and other known significant community problems?

Evaluation - The objectives must lend themselves to evaluation. Is there a realistic provision for post-project participant and institutional evaluation of the completed project by the institution? Does the program evaluation, in effect, determine the extent to which program objectives were achieved? The procedure for measurement of objectives must be clearly stated. Those responsible for the evaluation must be identified.

Administration - The project must be fully supported by the authorized administrator of the sponsoring institution. The project director must be identified and qualifications listed.

Budget - The budget must be realistic and all costs clearly identified in the program proposal. Is the project merited in terms of its cost? *(Please refer to the section on "Eligible Costs for Title I Programs.")*

Participants - Participants should be identified and their role clearly delineated in the process of planning, implementing, and evaluating the program. Letters of endorsement from cooperating agencies should indicate their role in the program.

Potential - The program should have real potential for continuing benefits after the Title I grant has terminated. Are there plans for sustained and continuing application of the project's services and activities after the initial grant period has terminated? There should be possibilities of multiplier effects for the community, the institution, and/or the State.

The degree to which information is presented in the proposal on all of these points will be a major factor in the review and funding process for all programs. The more comprehensive the information is, the better the chance of approval for a program, within the limits prescribed by categories, priorities, and available funds.

ASSESSMENT OF INSTITUTIONAL CAPABILITY:

The U. S. Office of Education has furnished the State Agency with the following information concerning assessment of institutional capability to conduct Community Service and Continuing Education Programs:

> With respect to the submission of an annual program plan, Section 173.12(b) (3) of the Regulations requires the State Agency to give assurance that "due consideration has been given to the resources of institutions of higher education especially relevant or adaptable to develop and carry out community service programs related to the community problems selected."
>
> Section 102(2) of the Higher Education Act of 1965 and Section 173.15(2) of the Regulations require each institution of higher education proposing a community service program to submit to the State Agency a certification "that the conduct of the program or performance of the activity or service is consistent with the institution's over-all educational program and is of such a nature as is appropriate to the effective utilization of the institution's special resources and competencies of its faculty."
>
> With respect to the selection of institutions, Section 105(a) 3(A) of the Higher Education Act of 1965 and Section 173.11(b) of the Regulations require the State Agency to give due consideration "to the relative capacity and willingness of particular institutions of higher education (whether public or private) to provide effective community service programs."
>
> Section 173.11(c) and (d) of the Regulations require further that the State Agency consider "whether the program, service, or activity will effectively utilize the special resources of the institution(s) of higher education and its faculty" and "whether the program, service, or activity will be consistent with the over-all educational program of the institution(s) of higher education."
>
> We interpret the above provisions to mean that in order for an institution of higher education to conduct a community service program it must have within its faculty the knowledge and experience relevant to the community problem to be solved. It is also understood that these faculty resources would be utilized in the design and/or execution of the program to be conducted.
>
> It is assumed that departmental competencies within the institution of higher education will be reflected by the number and qualifications of full-time faculty members. The proposed community service program should be of such a nature as to be consistent with a regular departmental curriculum. For example, a refresher training program for nurses should not be offered by an institution of higher education which does not have a medical or nursing school or a school of public health.

> We further interpret the provisions to mean that the research resources of the institution of higher education will be utilized in an instructional capacity. The results of research appropriate to the subject area should be translated into meaningful and effective educational activities.
>
> These interpretations are not meant to discourage institutions of higher education from supplementing its resources through the hiring of outside personnel possessing expertise in a given field. The addition of such personnel as consultants or part-time faculty members can in turn serve to develop or increase institutional competence as well as to achieve the objectives of a specific community services program.
>
> However, institutional capabilities may not be constituted primarily from outside sources. The ultimate responsibility for a community service program rests with the appropriate faculty and administration of the participating institution of higher education.
>
> In the final determination of "institutional capability" the State Agency should review current operational data regarding programs already funded to assure prompt initiation of proposed programs.

EVALUATION OF TITLE I PROGRAMS:

The evaluation of Title I programs has been one of the areas in which the participating institutions have been least effective. Evaluation is an important aspect of Title I programming at all levels of involvement; it is important to the Congress, to the U. S. Office of Education, to the State Agency and to the participating institutions. It provides the firsthand information needed (1) to measure the effectiveness of higher education under Title I and (2) to guide the development of future community service and continuing education programs. Its importance and constant attention cannot be overemphasized.

Evaluation of a Title I project is a continuous process. It begins at the time the program proposal is being prepared with a clear statement of program objectives. Program evaluation is, in effect, determining the extent to which program objectives were achieved. If objectives are specific and within the realm of possible achievement, the task of evaluation is greatly simplified.

Identifying real problems and specific project objectives is just as important to evaluation as the selection of workable methods for achieving these objectives. The educational process to be employed must fit the program and the persons and groups to be assisted in finding the solutions to their community problems. If program methods and procedures are planned and explicitly stated in the program proposal, evaluation of them becomes a matter of assessing strengths and weaknesses of planned methods in terms of actual program experience.

Also at the time the program proposal is prepared the evaluation procedure should be fully outlined. Advanced planning of the method to be used in reviewing program progress and final achievements will be of considerable assistance to project directors once the program becomes operative. Plans for evaluation should be implemented as soon as the program gets underway. Each seminar, workshop, or activity throughout the program should be evaluated separately by both the participants and the project director.

Another part of the program evaluation is a description of participants. Records should be kept on persons involved in each activity or meeting. A roster should be signed at each meeting giving name and organization represented. More complete information may be requested, or the project director may make notes of such facts as sex, age, race, extent of participation, and the like on the signed roster during the meeting. An accurate description of participants and organizations provides meaningful information for determining who was reached and how much benefit the project realized through its continuing education efforts.

On service projects, at the completion of the program, directors should interview recipients to assess gains or changes. If organizations or government agencies are involved in providing information and services, interviews should be arranged with the appropriate representatives to determine the extent and kinds of help requested and given. A record should be kept of interview responses for evaluation purposes.

In addition to objective data collected and reported in the final evaluation summary, a statement should be made by the project director of the program's usefulness in achieving the objectives it set out to achieve, or in solving or causing action toward the solution of specific community problems. His evaluation may be based upon an analysis of objective findings, but it also should reflect the program director's experience with the project and his opinions of its strengths and weaknesses in achieving program objectives.

ELIGIBLE COSTS FOR TITLE I PROGRAMS:

To assist program developers and proposal writers in completing applications for Title I funds, the subsection of the Title I Regulations [173.27(b)] concerning eligible program costs for participating institution is reproduced here:

> "(1) *Direct costs*. To the extent directly attributable to the carrying out of a community service program, a participating institution of higher education may treat as direct costs:
>
> "(i) Personnel costs, both professional and clerical, regular staff and consultants, including all amounts deducted, withheld, or contributed to retirement, health or other welfare benefit funds maintained for employees at the participating institutions.
>
> "(ii) Material costs, where materials are directly consumed or expended in carrying out the program, including the cost of supplies, mailing, printing, local and long distance telephone calls, telegrams, and radiograms;
>
> "(iii) Travel expenses of institutional personnel and consultants, in accordance with institutional regulations or policies. Maintenance costs, including transportation, meals and/or lodging of participants when necessary for the conduct of a program and prior approval has been granted by the State Agency;
>
> "(iv) Rental of, or, where economically justified, purchase of specialized program equipment which is not otherwise available at the institution; and

> "(2) *Indirect costs.* A participating institution may treat as indirect costs an amount which is computed on the basis of the principles for indirect cost determination set forth in Budget Circular A-21, as amended. (20 U.S.C. 1006)"

There are several items which are eligible costs under Federal Regulations, but expenditures for these items are discouraged or limited by State Agency policy due to the small amount of funds available for Title I programming. Charges for local telephone calls, telegrams, and radiograms have never been approved by the State Agency. Maintenance costs for program participants and rental or purchase of specialized program equipment are discouraged and have only been approved in exceptional cases.

Personnel services by faculty or staff members can be obtained through the use of released time or on an overload basis. Federal guidelines permit the compensation of faculty or staff members in excess of their base salary for the conduct of activities outside the normal duties of such member, provided that (1) the extra charges are determined at a rate not greater than the basic salary rate of the individual; (2) salary payments for such work follow practices consistently applied within the institution; and (3) specific authorization for such charges is included in the approved program.

Some proposals require travel by the personnel conducting program activities. Title I Regulations allow travel expenses of institutional personnel and consultants as eligible costs. All travel, both in-State and out-of-State, should be explained and justified in the proposal and detailed in the budget. Travel should be limited to the main project personnel and will be authorized only when it clearly contributes to the program objectives and activities.

State Agency policy concerning indirect costs appears under Section (2) "Fiscal Control of the Program" (page 7) of the Tennessee State Plan. Generally, the State Agency will accept an indirect cost rate approved by any agency of the Federal Government. Once an indirect cost rate is approved by the State Agency for a specific proposal, there can be no change in this rate even if the institution receives a higher approved rate prior to completion of the program.

Institutions that utilize outside consultants in a program should ensure that they are paid a "reasonable rate" and documents should be available to substantiate the actual services performed. Recent developments at the federal level, including a study by the General Accounting Office, indicated that some tightening up is needed in procedures and records with respect to use of consultants in federal programs.

OTHER FEDERAL PROGRAMS:

There are several new federal programs which have been recently enacted that provide a significant amount of new funds for problem areas that have been previously funded under Title I. The amount and availability of federal funds under these new programs should be taken into consideration when applying for Title I funds for programs in these problem areas. These factors will be considered by the State Agency during the review process.

THE UNIVERSITY OF TENNESSEE
STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965

115 Student Services and
Administration Building
Knoxville, Tennessee 37916
615/974-5181

TO: Institutions Submitting Fiscal Year 1975 Proposals

FROM: Paul R. Martin, Jr., Director

SUBJECT: INSTRUCTIONS FOR COMPLETION OF PROPOSAL FORM (HEA-5)

Attached is a Proposal Form--HEA-5 (Rev. 7-1-69)--to be used by institutions of higher education in Tennessee in submitting fiscal year 1975 proposals for funding consideration under Title I of the Higher Education Act of 1965. *PLEASE DO NOT USE OLDER FORMS IN SUBMITTING PROPOSALS TO THE STATE AGENCY.*

This proposal form is arranged in a logical order and adheres closely to certain items on the Notice of Activation submitted to the United States Office of Education; directions on the form are explicit and detailed; full and proper completion will require a minimum of additional information. Your attention is called specifically to these five points:

1. Review closely the ten "Criteria" for proposal development appearing immediately under this instruction sheet. Also review the "Guidelines for Developing Proposals" accompanying this Proposal Form.
2. Read the explicit directions, printed for your assistance in italics, and provide the requested data on each item in as much specific detail as possible.
3. Notice particularly the following items, which are the most significant and which are reviewed and used by the staff for summary and reporting purposes; these items weigh most heavily in a decision to fund a proposal; items F, G1, G2, G3a, G3e, G3h, G4, G7, and G8.
4. Complete every item; since the proposal form is, at best, an outline, please attach separate sheets or insert additional pages as exhibits whenever necessary; secure the required signatures shown on the last page.
5. Return twenty-five copies fully completed and signed to: State Agency for Title I, 106 Student Services Building, The University of Tennessee, Knoxville, Tennessee 37916.

Please note the [redacted] proposal submission deadline[redacted]: May 17, 1976 [redacted], and second-round proposals after July 1, 197[redacted]

PRM/ac

Attachment

Title I • • • Community Service and Continuing Education Programs • • •
A UNIT OF UT'S INSTITUTE FOR PUBLIC SERVICE

CRITERIA FOR REVIEWING AND EVALUATING PROPOSALS FOR FUNDING UNDER TITLE I OF THE HIGHER EDUCATION ACT OF 1965

To receive consideration for funding, proposals submitted to the State Agency must meet the provisions of Title I as well as the current Tennessee State Plan and the annual program amendment. Listed below are specific items which will be evaluated or reviewed in the selection of those proposals to be funded under Title I. The proposal form used for submitting programs should be completed with these criteria in mind.

1. Does the proposal contain a statement of the problem which adequately describes the proposal in broad and general terms (perhaps one brief paragraph)? Is there a need for the project in terms of the seriousness of the community problem? Is there an adequate description and documentation of the community need?

2. Is the stated problem one which should be attacked by a college or university under a Title I proposal? What is the appropriateness of the proposal to the problem? To the resources of the institution of higher education?

3. Are the program objectives significant and realistic?

4. Is the plan of execution educationally sound? Are well defined procedures, methods, and materials to be employed? Is the proposal innovative and exemplary? Is it an action program?

5. What is the capability of the institution (and the staff) for carrying out the proposed project? Can the capability of the institution to provide community service and continuing education programs be strengthened by the proposed project?

6. To what extent does the proposed project involve community representation and participation in planning, implementing, and evaluating the project?

7. Does the proposed program have real potentials for continuing benefits (multiplier effect) to the community, the institution, and/or the State?

8. Is the proposed budget realistic and economically sound? Is the project merited in terms of its cost?

9. Is there a realistic provision for post-project participant and institutional evaluation? Are there adequate provisions for self-evaluation of the completed project by the institution? Does the program evaluation, in effect, determine the extent to which the program objectives were achieved?

10. Are there plans for sustained and continuing application of the project's services and activities after the initial grant period has terminated?

PROPOSAL FORM--FISCAL YEAR ______

FOR COMMUNITY SERVICE AND CONTINUING EDUCATION PROGRAMS IN TENNESSEE UNDER TITLE I, HIGHER EDUCATION ACT OF 1965

A. TITLE OF PROPOSAL: ______

B. NAME OF INSTITUTION: ______

C. COLLEGE AND/OR DEPARTMENT: ______

D. INSTITUTIONAL REPRESENTATIVE:	E. PROJECT DIRECTOR:
1. Name: ______	______
2. Title: ______	______
3. Telephone: ______	______

F. DESCRIPTION OF THE COMMUNITY NEED; IDENTIFICATION OF THE COMMUNITY PROBLEM TO BE SOLVED: *The description need not be lengthy; it should, however, be clearly stated and show the relationship of the program to the problem identified. State the problem area, identified in the annual program amendment, to which this project relates. State the specific aspect of the problem area which the institution proposes to attack through the project. Describe the deficiency, misdirected activity, or specific condition toward which the project is directed. Provide facts, figures and other relevant data.*

EA-5 (Rev. 7-1-69)

G. DESCRIPTION OF THE PROPOSED COMMUNITY SERVICE PROGRAM:

1. **Specific objectives of the program:** *Program objectives are derived from the specific aspects of identified community problems. Stated objectives form the basis for planning the total program including content, methods, and evaluation procedures. An institutional goal such as, "to conduct a training institute for planners," does not constitute a* _program_ *objective.*

2. **Institutional goals:** *State how and to what extent this project proposes to develop or strengthen the interest and the capacity of this institution of higher education to provide meaningful community service and continuing education programs aimed at community problem-solving.*

3. **Detailed description of the education program, activity, or service:**

   a. **Program content (general field and specific subject):** *Describe in detail what is to be learned, the precise nature of the services, or the principle to be demonstrated. (Data collection, surveys and analyses are properly classified as "materials preparation" and are usually essential to the conduct of a community service program. The time, effort, and cost of such activity should be commensurate with the educational activity. Description should indicate the relationship of data-gathering to the other program activities, and should provide an estimate of the comparitive time spent on materials preparation to other activities.)*

G. DESCRIPTION OF THE PROPOSED COMMUNITY SERVICE PROGRAM (Continued):

b. Geographic location encompassed by the program (local, metropolitan area, county-wide, regional, Statewide, etc.): *Be as specific as possible.*

c. Rationale for the program (new, expansion, or improvement): *Indicate whether the project (1) is a continuation of a Title I project, (2) is an expansion or improvement of a non-Title I program already in operation, or (3) is a project new to the institution or geographic area. If this project is a continuation of a previous Title I program, summarize the institution's plans to integrate this project into its regular program without Title I funds. Indicate how the project expands or improves an already-existing program, what new methods will be used, what new audience will be reached, etc.*

d. Methods and materials employed in presentation or implementation:

e. Schedule of program, activity, or service (program dates and frequency and duration of sessions): *Be as specific as possible.*

f. Any unique or innovative features:

G. DESCRIPTION OF THE PROPOSED COMMUNITY SERVICE PROGRAM (Continued):

g. Description of population to be served (identifiable group classification): *Describe direct participants, including those trained or educated during the project. If applicable, also describe ultimate beneficiaries of the project (future students of those trained; local workers to be benefited by training supervisors; etc.).*

(1) Estimated number of direct participants: ______________________________

(2) Estimated number of ultimate beneficiaries: ___________________________

h. Participant involvement in planning (extent of consultation and awareness of program):

4. State or local governmental units, private organizations, and community agencies cooperating with program: *Include those organizations which assist in planning, provide supporting services, or recruit participants. (Letters of endorsement from selected cooperating organizations should be attached to this proposal form; the endorsement and cooperation of officials of certain participant groups involved in program planning can help to ensure a successful program.)*

G. DESCRIPTION OF THE PROPOSED COMMUNITY SERVICE PROGRAM (Continued):

5. Commencement date: ______________ Estimated completion date: ______________
Denote inclusive budget period in which planning, programming and evaluation is conducted.

6. Academic resources for program: *Furnish a biographical sketch, including name, highest earned degree, institution, year awarded, present title, and experience.*

   a. Faculty resources at this institution:

   b. Consultants (not at this institution):

7. Description of evaluation procedures: *Be specific. Describe* procedures *which are designed to determine whether and to what extent program objectives have been fulfilled. Indicate tools for determining changes in behavior, skills, or knowledge of participants, such as pre- and post-testing, follow-up observations of participants in their communities, interviews,* etc. *Expressed feelings of participants toward the project should be supplemented by the use of other tools.*

G. DESCRIPTION OF THE PROPOSED COMMUNITY SERVICE PROGRAM (Continued):

8. Publications: *Explain the nature of any expected publications emanating from this project--results of materials preparation or action-directed research, conference proceedings, directory, final evaluation, and the like. (Reserve and provide the State Agency with 100 copies of significant publications for distribution to members of the State Advisory Council, officials of the U. S. Office of Education, members of Congress, and other State Agencies.)*

H. ACCOUNTING PRACTICE: *Describe the accounting practice of your institution--cash, accrual, or obligation.*

I. COSTS OF PROGRAM: *Use item format below; provide detailed information for each functional classification where appropriate; indicate the source of non-federal matching funds; itemize in detail on separate sheet.*

Estimated Expenditures:	Total
1. Staff Personnel: *List name, title, and rank of each participant, showing rate of pay per hour, day, week, or month; the total amount of time to be devoted to the project; and the dollar total estimated for the project.*	$
2. Temporary Help: *Describe the type of such help; i.e., clerical, consultants, etc., the rate of pay, amount of time and dollar total.*	
3. Travel for Staff and Consultants:	
4. Operating Expenses: *Itemize: supplies, communication, printing, fringe benefits, if any, etc.*	
5. Total Direct Costs:	$
6. Indirect Costs: (In accordance with Bureau of the Budget Circular A-21, as amended).	

Rate and Base: ** percent of

*** Include federal agency approval of rate, if any.*

7. Total Costs:	$

Identify Source of Non-Federal Matching Funds:

General Institutional Funds:	$
State Appropriations:	
Registration Fees:	
Donations or Contributions:	
Other Sources:	
Total:	$

J. STATEMENTS OF INSTITUTIONAL INVOLVEMENT:

1. As institutional assurances, this is to certify:

   a. That this institution is committed to administrative support and faculty involvement in this proposal;

   b. That the proposed program is not otherwise available;

   c. That the conduct of the program or performance of the activity or service is consistent with the institution's over-all educational program and is of such a nature as is appropriate to the effective utilization of the institution's special resources and the competencies of its faculty;

   d. That, if courses are involved, such courses are extension or continuing education courses and (i) that they are fully acceptable toward an academic degree, or (ii) that they are of college level as determined by the institution offering the courses;

   e. That this institution has signed HEW Form 441 required under the Civil Rights Act of 1964 and the Regulations of the Department of Health, Education, and Welfare; and

   f. That this program is not related to sectarian instruction or religious worship or is not provided by a school or department of divinity.

2. As fiscal assurances, this is to certify:

   a. That federal funds allotted to the State for the program herein described will not be used to supplant State or local funds, or funds of institutions of higher education but to supplement and, to the extent practicable, to increase the amount of such funds that would otherwise be made available for community service programs;

   b. That matching funds in the amount required (at least 33 1/3 percent of the total costs of the program as stated) will be provided by the institution making the proposal;

   c. That this institution will have available during the fiscal year (for which funds are requested) from non-federal sources for expenditures for extension and continuing education programs not less than the total amount actually expended by this institution for extension and continuing education programs for such sources during fiscal year 1965, plus an amount which is not less than the non-federal share of the costs of community service programs for which federal financial assistance is requested; and

   d. That the account for community service and continuing education programs will be classified under the function "Extension and Public Service" as outlined in College and University Business Administration, Volume I, unless prior written approval has been made by the State Agency to deviate from this functional classification.

K. SIGNATURES (certification of institutional commitment and required assurances): *This proposal* *__must__* *be signed by the proposal writer/project director and the institutional representative; it* *__must__* *be approved by the appropriate administrative officer, preferably the president, vice president, vice chancellor, or academic dean.*

The applicant institution requests federal financial support for this proposal under provisions of Title I of the Higher Education Act of 1965. If funded, this proposal will be conducted in accordance with the guidelines in the Tennessee State Plan (as amended) and the Title I Regulations (45 C.F.R., Chapter I, Part 173).

WRITTEN/CONDUCTED BY:

Signature: ______________________________
Proposal Writer/Project Director

Title: ______________________________

Date: ______________________________

SUBMITTED BY:

Signature: ______________________________
Institutional Representative

Title: ______________________________

Date: ______________________________

APPROVED BY:

Signature: ______________________________
Administrative Officer

Title: ______________________________

Date: ______________________________

The University of Tennessee
GOVERNMENT-INDUSTRY-LAW CENTER

PRIMARY CAMPUSES:
Knoxville
Medical Units / Memphis
Martin
Chattanooga
Nashville

STATE AGENCY FOR TITLE I
HIGHER EDUCATION ACT OF 1965
426 Communications and
University Extension Building
Knoxville 37916
615: 974-5181

TO: Institutions submitting proposals for Community Service and Continuing Education Programs

FROM: State Agency for Title I

SUBJECT: ABSTRACT FORM (HEA-5A) TO ACCOMPANY PROPOSAL

The attached Abstract Form (HEA-5A) must be filled in and accompany each Proposal Form (HEA-5) submitted for funding consideration under the Community Service and Continuing Education Program (Title I, Higher Education Act of 1965) in Tennessee.

This Abstract Form provides space for a brief description of the total program and other data concerning program objectives, institutional resources, cooperating agencies, and coordination with related programs. This information is used by the State Agency in the funding review process and in completing the Notice of Activation required on each program by the U. S. Office of Education.

Please complete ONE COPY of this Abstract Form to accompany each proposal submitted to the State Agency.

PRM:

Attachment

ABSTRACT FORM TO ACCOMPANY PROPOSAL

FOR COMMUNITY SERVICE AND CONTINUING EDUCATION PROGRAM IN TENNESSEE UNDER TITLE I, HIGHER EDUCATION ACT OF 1965

A. Title of Proposal: ______________________________

B. Name of Institution: ______________________________

C. College and/or Department: ______________________________

D. Provide a brief abstract (150 words or less) of the total program, activity, or service to be performed. (Include information on nature of the community problem, content, methods, and materials, and, where applicable, the frequency and duration of sessions and/or studies. This statement will be used for congressional and public information purposes.)

HEA-5A (New 7-1-70)

E. State the specific outcomes or objectives the project seeks to achieve in the community and in institutions of higher education with reference to changes in individuals, groups, institutions, and/or environments.

F. Check the one category which identifies the central purpose of the project most accurately:

1. ( ) Individual Improvement. Those cases where the central purpose is that of changing individual participants.
2. ( ) Institutional Improvement. Those cases where the central purpose is that of changing community groups, organizations, or institutions.

G. If you have checked F-1, check the one category which identifies the predominant type of individual improvement most accurately:

1. ( ) Changing attitudes or appreciation.
2. ( ) Enhancing skills or motor abilities.
3. ( ) Increasing the level of knowledge or understanding.
4. ( ) Equipping for and stimulating specific community action

H. If you have checked F-2, check the one category which identifies the predominant type of institutional improvement most accurately:

1. ( ) Substantially changing the organizational pattern or allocation of human resources within an organization, group, or institution.
2. ( ) Changing the quality and quantity of products and/or services provided by an organization, group, or institution.

I. Check evaluation procedures to be used:

1. ( ) Assessment of impact upon participating colleges and universities.
2. ( ) Pre- and post-test to participants.
3. ( ) Followup assessment of changed individual and/or group behavior.
4. ( ) Process observation and appraisal.
5. ( ) Participant reaction survey.
6. ( ) Other ____________________ ____________________________.

J. The proposed project is (check the one best description):

1. ( ) A discrete one-time effort to serve a particular population or problem.
2. ( ) An integral part of a long-term institutional program designed to enlarge or enhance the institution's effort in this area of community service/continuing education.
3. ( ) The beginning phase(s) of a new or improved community service/continuing education program which the institution of higher education plans to implement on a sustained basis.

K. Check the type(s) and describe the extent of college and/or university involvement in the project:

1. ( ) Faculty Resources. The anticipated number involved will be ________. This is _________ estimated man-years.* Please list by name and field of specialization. (*Based on 1800 hours per man-year.)

K. (Continued)

2. ( ) Student Resources. The anticipated number involved will be ________. This is ________ estimated man-years. Please indicate the kinds of roles students will play in the project.

3. ( ) Administration Resources. Check and complete the appropriate sub-items below:
   - a. ( ) Sponsorship and support by major department(s) of the institution. Please list departments.
   - b. ( ) Sponsorship and support by academic dean(s). Please list these.
   - c. ( ) Sponsorship and support by the chief executive officer(s). Please list.

L. Check items as appropriate and indicate number of private and/or public agencies, other than institutions of higher education, that are actively involved in the project, i.e., by providing substantive assistance in such things as planning, recruitment, teaching, equipment, facilities, and/or evaluation.

1. ( ) Public Agencies. Number ______________.
   Please list and indicate nature of assistance.

2. ( ) Private Agencies. Number ______________.
   Please list and indicate nature of assistance.

3. ( ) Citizens of Areas Served or Affected. Number ____________.
   Please list and indicate nature of assistance.

M. Check the geographical area(s) served:

1. ( ) Urban
   ( ) Suburban
   ( ) Rural
   ( ) Other ____________________

2. ( ) Appalachia
   ( ) Model City Neighborhood
   ( ) Inner City
   ( ) Other ________________

N. If the target population includes any of the following ethnic minorities, please check the appropriate categories:

1. ( ) American Indians
   ( ) American Orientals
   ( ) American Negroes
   ( ) Other ______________________

2. If Spanish Surnames:
   ( ) Mexican Americans
   ( ) Cubans
   ( ) Puerto Ricans
   ( ) Other ________________

O. Identify all federal programs that are related to, affected by, or coordinated with this project:

1. ( ) Federal Higher Education Programs (e.g., Upward Bound, Talent Search, Work-Study, Teachers Corps, and the like).

2. ( ) Other Federal Programs (e.g., Model Cities, Title VIII of the Housing Act, Economic Opportunity Act, Manpower Training and Development Act, and the like).

P. Are any publications or films planned as a part of or outgrowth of the project?

1. ( ) Yes. 2. ( ) No. If yes, describe briefly.

Q. Signatures (certification of institutional commitment and required assurances). This abstract form must be signed by the proposal writer/project director and the institutional representative; it must be approved by the appropriate administrative officer, preferably the president, vice president, chancellor, vice chancellor, or academic dean.

The applicant institution requests federal financial support for this proposal under provisions of Title I of the Higher Education Act of 1965. If funded, this proposal will be conducted in accordance with the guidelines in the Tennessee State Plan (as amended) and the Title I Regulations, as amended (45 C.F.R., Chapter I, Part 173).

WRITTEN/CONDUCTED BY:

Signature: ______________________________
Proposal Writer/Project Director

Title: ______________________________

Date: ______________________________

SUBMITTED BY:

Signature: ______________________________
Institutional Representative

Title: ______________________________

Date: ______________________________

APPROVED BY:

Signature: ______________________________
Administrative Officer

Title: ______________________________

Date: ______________________________

HEA-5A (New 7-1-70)